DOCUMENT RESUME

ED 111 777 SP 009 468

AUTHOR	Sacay, Valerie Hakam, Ed.
TITLE	Teachers and Teaching: Annotated Bibliographies on Selected Topics. Volume 2: Analyzing Teacher Attitudes toward Students and Behavioral Interaction in the Classroom.
INSTITUTION	City Univ. of New York, Brooklyn, N.Y. Brooklyn Coll.
PUB DATE	Jun 75
NOTE	159p.; For related documents, see SP 009 467 and 469
EDRS PRICE	MF-$0.76 HC-$8.24 Plus Postage
DESCRIPTORS	Abstracts; Academic Achievement; *Annotated Bibliographies; Culturally Disadvantaged; Elementary Secondary Education; Exceptional Children; Interaction Process Analysis; Minority Groups; Special Programs; *Student Behavior; *Student Teacher Relationship; *Teacher Attitudes; Teacher Behavior; Tests

ABSTRACT

This annotated bibliography includes 127 selected research articles and reports on teacher-pupil interaction which have appeared in the literature from 1968 to 1972. The entries are numbered and are arranged alphabetically by author in the body of the bibliography. Code letters identify descriptor categories by which each item is classified. A listing of items by descriptor category follows the annotations. (Author)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED111777

TEACHERS AND TEACHING: ANNOTATED BIBLIOGRAPHIES ON SELECTED TOPICS

VOLUME 2: ANALYZING TEACHER ATTITUDES TOWARD STUDENTS AND BEHAVIORAL INTERACTION IN THE CLASSROOM

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

SP009 468

Teachers and Teaching: Annotated Bibliographies on Selected Topics

Valerie Hakam Sacay, Editor

Volume 1:	Teacher Candidates
Volume 2:	Analyzing Teacher Attitudes Toward Students and Behavioral Interaction in the Classroom
Volume 3:	Characteristics, Attitudes and Values of Teachers
Volume 4:	Evaluation of Teacher Qualifications and Performance for Purposes of Selection, Self-Improvement, and/or Professional Advancement

BROOKLYN COLLEGE OF THE CITY UNIVERSITY OF NEW YORK
Institutional Research and Program Evaluation

June, 1975

ACKNOWLEDGMENTS

Appreciation is due to the Research Assistants and Annotators who prepared much of the original material for this volume. They are, Ms. Louise Mini, Ms. Betsey Bittlingmaier, Mr. Arthur L. Hausman, and Mr. Steven Korner.

v.h.s.

INTRODUCTION

This bibliography includes selected research articles and reports on teacher-pupil interaction which have appeared in the literature from 1968 to 1972. The entries are numbered and are arranged alphabetically by author in the body of the bibliography. Code letters identify the descriptor categories by which each item is classified: those written entirely in capitals refer to grade levels while those written in upper and lower case refer to topic areas. A listing of items by descriptor category follows the annotations.

CODE LETTERS AND DESCRIPTOR CATEGORIES

Code		Descriptor
PSL		pre-school level
EPL		primary or elementary level
JHL		junior high or high school level
CUL		college or university level
Ats		attitudes toward students, influences upon
Be--		behavioral aspects, relationship of teacher behavior to--
	Bep	background, qualifications, experience
	Bec	classroom climate
	Bed	discipline
	Bei	interaction between student and teacher
	Bep	personality characteristics of teacher
	Ber	rating of teacher behavior by students
	Bes	strategy, style, method or technique of instruction
	Bev	verbal and non-verbal communication
Com		comparing student and teacher attitudes
Dis		culturally disadvantaged children, minority groups, racial issues
Exc		exceptional children, disturbed children
Gif		gifted children
Pyg		pygmalion or expectancy effect, self-fulfilling prophecy
Spe		special programs (e.g., Head Start, AAAS), study institutes, in-service training
Stu		student achievement
Tem		tests and measurement, methods of behavior analysis

EPL
Ats
Beb
Dis

1. Anderson, J. G. Teachers of Minority Groups: The Origins of Their Attitudes and Instructional Practices. Las Cruces: New Mexico State University, 1969. ED 026 192

Purpose. To determine the origins of mathematics teachers' attitudes toward Mexican-American children, and their instructional practices with these children.

Procedure. The population was drawn from three distinct ecological areas in El Paso, Texas, where many of the public school students are first generation Mexican-Americans. A sample of 72 mathematics public school teachers from the three districts received questionnaires developed to elicit information regarding: personal background, professional training and experience, teaching methods, attitudes toward students and their parents, and toward special Mexican-American programs.

Results. The 42 items on the questionnaire were factor analyzed. Findings indicate that origins of teacher attitudes toward disadvantaged minority students may be related to type of professional training received. Teaching methods employed, attitudes toward special compensatory programs, evaluation of student ability and effort, and the type of student the teacher enjoys teaching all seem to be related to the teacher's level of professional training and career aspirations.

Comment. Copy of questionnaire accompanies article. One must draw inferences about upbringing and its effect on attitudes based on this measurement.

EPL
JHL
Ats
Bec
Dis

2. Anderson, J.G. et al. Mexican-American Students in a Metropolitan Context: Factors Affecting the Social-Emotional Climate of the Classroom. University Park: New Mexico State University, 1969. ED 030 521

The study was undertaken to systematically explore some of the social mechanisms within classrooms that mediate educational effects of schools for Mexican-Americans in a metropolitan context. Seventy-two teachers from 9 schools in 3 distinct ecological areas in El Paso, Texas, were asked to complete a questionnaire and the Minnesota Teacher Attitude Inventory in order to learn about their academic backgrounds, experience, instructional practices, and attitudes toward special programs for Mexican-American students. The instructional process was analyzed by observing and recording classroom behavior. All the classrooms studied were found to be highly teacher-dominated with little student-initiated discussion. However, differences in teachers' attitudes and classroom approaches were apparent in all grade levels and in all 3 areas. These included affective relations with students, directness in the classroom, and amount of empathy for Spanish-speaking students. The findings indicated that the 2 factors which profoundly affected teacher-student relationships in classrooms were the professional training of the teacher and the peculiar characteristics of the school's student body. Tables and figures are included. (ERIC abstract)

EPL
Com
Arith-
metic

3. Anttonen, R. G., and Deigham, W. An Exploration Into Teacher and Student Arithmetic Attitudes at Grades 3, 5, and 6. Paper read at American Educational Research Association Annual Meeting, 1971. ED 047 983

Purpose. To compare students' attitudes toward arithmetic with their teachers' attitudes toward arithmetic.

Procedure. Subjects were 1022 students and 39 teachers of grades 3, 5, and 6 from one school district in Cleveland, Ohio. The district is middle-class with an average family income of $12,000 per year. The students and 25 of the teachers were given a 28 item arithmetic attitude scale developed by Dr. Cyril J. Hoyt (Anttonen, 1967). A 3x3x2 crossed analysis of variance was used. The independent variables were: teacher attitude (high, low, middle); grade level (3, 5, and 6); and sex of student. The dependent variable was the mean classroom attitude score calculated separately for each sex.

Results. Any interaction involving teachers' opinions failed to reach statistical significance. There was a significant difference at the .01 level between the three grade levels with a decrease in affirmative attitudes toward arithmetic at higher grade levels.

CUL
Ber
Tem

4. Apt, M.H. A Measurement of College Instructor Behavior. Pennsylvania: Pittsburgh University, 1966. ED 016 297

This study tests the hypothesis that college instructor behavior can be identified and measured by the use of a graphic rating scale when the rater responds to common bipolar adjectives. The behaviors will yield, when subjected to factor analysis, clusters of traits which would identify subgroups of college instructors. Student ratings of college instructor behavior were obtained through the use of a scale composed of 12 bipolar adjectives from the Osgood Semantic Differential, 13 single adjectives from other research studies and an overall global rating of instruction. The scale was administered to undergraduate liberal arts classes of the same instructors on two occasions separated by a time interval of 15 weeks. The total sample of 7,060 students rated 104 instructors in humanities, natural sciences and social sciences at the University of Pittsburgh. It was concluded that students distributed their judgments of instructors in a markedly reliable manner, but the variance observed did not significantly discriminate between instructors according to academic division nor did it relate to any appreciable degree to global estimates of effectiveness. The discriminations expected were not within the competence of the Osgood Scale or of the single adjectives listed. (ERIC abstract)

5. Aspy, D.N. The Effect of Teachers' Inferred Self Concept Upon Student Achievement. Gainesville: Florida University, 1969. ED 031 300

A study was conducted to determine if students with teachers of high self-concepts achieved greater gains than students with teachers of low self-concepts. Six third-grade teachers were observed one hour in September and another hour in March during a reading lesson, by three raters who completed a checklist designed to assess self-concept. Twenty students from each class were selected by IQ and sex. Five subtests of the Stanford Achievement Test were administered as pretests and posttests. A positive relationship between teacher self-concept and student achievement gains was observed on subtests of paragraph meaning, language, word meaning, and word study skills, and was statistically significant at or above the .05 level. On the spelling subtest, teacher self-concept was related negatively to the test score gains, but the relationship was not statistically significant at or above the .05 level. On the spelling subtest, teacher self-concept was related negatively to the test score gains, but the relationship was not statistically significant at the .05 level. Further studies should be conducted. References and behavior rating scales are included. (ERIC abstract)

JHL
Bev
Spe
Tem
Biology

6. Balzer, A.L. An Exploratory Investigation of Verbal and Non-Verbal Behaviors of BSCS Teachers and Non-BSCS Teachers. Columbus: Ohio State University, 1968. ED 027 197

Developed was a category system for systematic observation of the verbal and non-verbal behavior of high school biology teachers in both classroom and laboratory situations. This system was used to study the similarities and differences existing between the Biological Sciences Curriculum Study (BSCS) and non-BSCS teachers. Individual teachers differed significantly with respect to laboratory management, control, release, scientific process, facilitating communication, and negative affectivity, but no significant differences were found between the two groups. Scientific process for the two groups approaches significance at the .05 level; it was evident from inspection that BSCS teachers were higher in scientific process behaviors than non-BSCS teachers. Findings indicated that non-verbal behaviors influenced the learning situation in some 65 per cent of all teacher behaviors studied. A Biological Sciences Curriculum Study. (ERIC abstract)

JHL
Bev
Spe
Biology

7. Balzer, A. L. Nonverbal and verbal behaviors of biology teachers. American Biology Teacher, 1969, 31(4), 226-229.

Purpose. To obtain and analyze a sample of biology teacher behavior that was as complete, accurate, and objective as possible.

Procedure. Video tape recordings were made of four Biological Sciences Curriculum Study (BSCS) teachers and four non-BSCS teachers at five different times. This enabled the accurate analysis, and objective measure (no experimental variables were introduced) of teacher behavior.

Results. There were no significant differences found between the two groups of teachers on any behavior observed. However, the percentages of the occurrence of certain behaviors is interesting. For example, management behaviors comprised 44.29% of total behaviors. Behaviors of goal setting constituted only .81% of all behaviors. Affectivity behaviors comprised only 1.38% of all behaviors, indicating that high school biology teachers seldom resort to the encouragement or discouragement of student contributions. On the basis of time consumed, content development consumed almost half of the total behaviors. One of the most interesting findings was that nonverbal behaviors were the most prominent form of expression. This casts doubt on the assumption that verbal analysis is an adequate sample of teacher behavior. A teacher's awareness of the impact of his nonverbal behaviors on his students should serve to make him more sensitive to his nonverbal influence. It is also apparent that more study of nonverbal behaviors is needed.

8. Bartolome, P. Teachers' objectives and questions in primary reading. Reading Teacher, 1969, 23, 27-33.

Purpose. This study attempted to answer the following questions: a) What types of questions do teachers ask in primary reading classes? b) What types of objectives do teachers seek to achieve? c) Do the categories of objectives teachers seek to achieve differ with the categories of questions they ask?

Procedure. Six observations of eighteen teachers--six from each of the first, second, and third grades--were made in Regina, Canada classrooms. Four fourth-year education students were trained as observers. Data were classified according to a descriptive rating scale with seven categories of questions: 1) Memory (location and recall of material); 2) Translation; 3) Interpretation; 4) Application (involves the solution of life problems and requires identification of the issues and appropriate generalizations); 5) Analysis (requires pupils to look at the components and their relationship to the whole in order to make conjectures); 6) Synthesis; and 7) Evaluation (calls for the pupil to make ethical and value judgments based on personal standards).

Difficulty was encountered in obtaining teacher statements of objectives since they were often expressed in vague and general terms. The most frequently stated objectives involved analysis (54.43 per cent), followed by application (22.17 per cent).

Comparison of teachers' questions and objectives reveals that while objectives frequently stated involved analysis and application, questions most frequently asked required memory. It was noted that higher-level comprehension questions tended to occur more often when using individualized reading than when using the basal reader.

Results. Memory questions constituted 47.54 per cent of questions recorded. Analysis questions were the next most frequently asked and constituted 25.94 per cent. Application (2.29 per cent) and Evaluation (2.55 per cent) questions were rarely used.

Comment. The author argues that the infrequent use of application and evaluation questions together with the preponderance of memory questions, leads to the development of "higher illiterates" who can only absorb and repeat the ideas found in books but who cannot apply them to their own situation.

Bartolome, P.

In view of Piaget's developmental theory, are the expectations of the author above the ability of primary grade children? Is this a gap which teachers of these grades sensed causing them to refrain from placing an emphasis on higher-level questions? Are the stated objectives of the teachers affected by the researcher's actual query? As the author noted, teachers' statements of objectives were often vague and generalized. Verbalized objectives, then, may have been formulated expressly for the researcher's benefit.

EPL
Ats
Dis
Spe

9. Baty, R. M. The Effect of Cross-Cultural Inservice Training on Selected Attitudes of Elementary School Teacher Volunteers: A Field Experiment. California: Stanford International Development Education Center, 1970. ED 046 902

Purpose. To determine the effect of exposure to cultural-social-economic diversity on selected attitudes of elementary school teachers by investigating the effects on teacher tolerance and optimism of (1) the usual classroom situation and (2) an inservice training program.

Procedure. The training program was designed to increase the teachers' understanding of the children's cultural background and to help teachers increase the children's self-esteem. It consisted of ten 3-hour sessions. The number of subjects is not given, although it may be inferred from a footnote that at least 50 teachers participated in the inservice program. A community with a Mexican-American minority population was chosen as the site for the experiment.

"Teaching the Disadvantaged: An Opinion Survey" by Dr. Harold A. Jonsson, was the instrument used. It contains 81 items which probe two attitudinal orientations: optimistic orientation toward achievement potential, and tolerance for self-assertiveness by educationally disadvantaged. The research was conducted using a pretest-posttest control group design with replication.

Results. The training program had a significant effect on teacher tolerance. Teachers in the training program became more liberal in orientation; those in the control group became more conservative. The training program also increased teacher optimism.

Comment. This seemed none too well organized an experiment with subjects constantly dropping out or enrolling in different courses.

Ats
Dis
Spe

10. Baumann, R., and Nussel, E.J. Study of Change in Attitude of Participants in Summer Workshops for Teachers of Culturally Disadvantaged Youth.

A need exists for inservice programs for teachers of the disadvantaged which will develop in these teachers attitudes conducive to improving their relationships with inner city children. To fulfill this objective, a three-week summer institute was planned for 40 teachers and 10 administrators in 1966 (group one) and 40 teachers in 1967 (group two) with courses in the social psychology of the disadvantaged; communication, linguistics, and group processes; and the nature of value and attitude change. The Minnesota Teacher Attitude Inventory was administered as a pretest during the initial meeting of each group, as a posttest on completion of the program, and as a resiliency test six months after completion of the program. Results showed that while postinstitute scores are encouraging when compared to preinstitute scores, there was a regression in both groups to preinstitute levels after six months. It would appear that this regression occurred because of a resistance to change in the institutional structure of schools, and that a need exists for organizational change to implement institute inspired innovation. (ERIC abstract)

11. Bemis, K., and Luft, M. Relationships Between Teacher Behavior, Pupil Behavior, and Pupil Achievement. Albuquerque, New Mexico: Southwestern Cooperative Educational Laboratory, 1970. ED 038 189

Purpose. To examine relationships among teacher behavior, student behavior, and student achievement.

Procedure. To investigate these relationships, the Southwestern Cooperative Educational Laboratory Interaction Observation Schedule (SCIOS), was developed. This instrument judged pupil-teacher interaction, from the pupil point of view, by the degree to which pupils (1) receive, (2) respond to, and (3) value a stimulus (the teacher). Teacher behaviors were categorized as either tension reducing or tension increasing for pupils.

The sample comprised 15 teachers and 296 students in Title I schools. Two observers gathered data using the SCIOS in each of 15 first grade classrooms eight times during a five month period. To assess cognitive gain, pupils were pre-tested in September and post-tested in March with the Lee-Clark Reading Readiness Test, Kingergarten and Grade 1, 1962 revision.

Statistical analyses included factor analysis of 18 teacher behaviors and 20 pupil behaviors, computations of canonical correlations between teacher and pupil behavior factor scores, and multiple regression analyses to determine the value of teacher and pupil behaviors in predicting class achievement. Factor analysis revealed eight factors of teacher behaviors and seven factors of pupil behaviors. The following were statistically significant: (1) canonical correlations between teacher behavior factors and pupil behavior factors; (2) the multiple correlation coefficient between the seven pupil factor scores and the total achievement gain scores; and (3) the multiple correlation coefficient between the eight teacher factor scores and the total achievement gain scores.

Results. The results indicate that there are significant relationships between teacher behaviors, pupil behaviors, and pupil gain implying that the following teacher and pupil behaviors occur in the same classrooms: (a) talkative teachers have shy pupils; (b) nurturant teachers have affiliative pupils; and (c) uncooperative teachers have disruptive, bored, and hyperactive pupils.

Comment. The SCIOS was not validated. The rationale for categorizing the three teacher types was not discussed. Additionally, the use of the canonical correlation technique to determine which groups of teacher behaviors and which groups of pupil behaviors were significantly related lacks methodological sophistication.

JHL
Bep
Ber
Gif

12. Bishop, W.C. Successful teachers of the gifted. Exceptional Children, 1968, 34(5), 317-325.

Purpose. To determine the personal qualities of those teachers perceived as successful by gifted high school students.

Procedure. One hundred and eighty-one high school students, who were chosen to participate in the Governor's Honors Program for gifted students in Georgia, completed questionnaires wherein they listed their high school teachers who, in their judgment, were the most successful teachers. From the lists of teachers submitted, three groups were chosen for study. One group included 109 teachers selected by one or more students as his "most successful" teacher. Another group consisted of 97 teachers who had formerly taught in the Governor's Program but who had not been selected. The third group included 30 teachers who were selected for intensive study which included an interview, the verbal section of the Wechsler Adult Intelligence Scale (WAIS), the Edwards Personal Preference Scale (EPPS), and an examination of college transcripts.

Every teacher in the study completed a copy of the Teacher Characteristics Schedule (TCS) constructed by Ryan (1960). This schedule is a 176-item inventory which estimates teacher behavior, attitude, verbal ability, etc. from responses to multiple choice items relating to preferences, judgments, activities, personal background, etc.

Results. Teachers who were identified by the students as being effective did not differ from teachers not so identified in terms of sex, marital status, undergraduate background, level of education, course work preparation or extent of association with professional organizations. Findings indicate the following in regard to identified teachers:

(1) These teachers obtained an IQ score placing them in the upper 3 percent of the general population and significantly higher than that of their colleagues.
(2) They were more "intellectual" in nature.
(3) They had high achievement needs.
(4) They became teachers because of their desire for intellectual growth.
(5) They were more student oriented, i.e., were more sensitive to the students' personal needs, interests, motives, etc.
(6) They had greater interest in student classroom participation and opinion.

(7) They were more systematic and businesslike in their classroom approach.
(8) They stimulated their students to want to learn, study and think independently rather than just accumulate bits of data.
(9) They had significantly expressed a definite desire to teach the exceptionally gifted child.

Comment. These conclusions imply that special consideration should be given to the selection of teachers for the gifted. Such teachers should possess those qualities which are common to the gifted group, and should also have a special interest in working with these students.

13. Bittner, J.R. Student evaluation of instructors' communication effectiveness. *College Student Survey*, 1968, 2(2), 38-40.

Purpose. An attempt was made, through content analysis, to uncover those factors in oral communication which college students perceive as affecting teacher effectiveness. Also determined were the level of instruction and the subject area in which most negative comments occur in student ratings of an instructor's oral communicative abilities.

Procedure. The subjects for this study were students in 500 classrooms at Purdue University. Each participated in a university-wide course and instructor evaluation. This study dealt with the analysis of the "subjective comments" given by students in their evaluations of instructors' oral communication abilities. Five categories evolved from the content analysis: rate of speaking; volume, tone, and pitch; use of audio-visual aids; use of discussion; and organization of lecture.

Results. It was found that the highest percentage of negative comments in a single category occurred in volume, tone, and pitch. Students reacted least negatively to audio-visual aids.

Content analysis of comments per instructor rank found the highest percentage of negative comments attributed to graduate teaching assistants.

Hence, it appears that graduate assistants are ranked the lowest; yet, they are very often the people who teach the introductory courses to incoming freshmen. Thus, greater attention to prior training in oral communication should be considered when evaluating graduate assistants for teaching positions.

Comment. There is a need for greater emphasis upon more detailed rating scales when evaluating factors of oral communication. Criteria such as "Presentation of subject matter," "Speech," etc. are far too general. Perhaps the categories suggested in this study are a good place to start.

Bes
Stu
Math

14. Bolvin, J.O. Evaluating Teacher Functions. Paper read at American Educational Research Association Meeting, 1967. ED 020 573

A crucial aspect of teacher activity under Individually Prescribed Instruction (IPI) in mathematics is the development of individualized lesson plans or prescriptions. The quality of these prescriptions is a major determinant of the extent to which instruction is actually individualized and the extent to which each pupil is permitted to progress at his own best pace. The evaluation of teacher performance based on a model of prescription writing shows that individual prescriptions vary among children, that each teacher has developed a personal style, and that most teachers rely almost exclusively on pre-unit tests. The results of the study show that improvement of IPI requires teachers to have (1) current, easily available, and comprehensive information about each student, (2) a greater variety of assignable materials, (3) specific definitions of the terms "mastery" and "self-direction" in relation to operating procedures, and (4) a rationale behind variations in prescriptions which closely follows each child's learning needs. (ERIC abstract)

JHL
Bei
Com
Tem

15. Boyd, R.S. Student Attitudes and Teachers Judgment of Student Attitudes. ED 016 270

Through interviews by a psychologist at two different high schools, an MQ-sort instrument was developed. The instrument consisted of 100 statements concerning grades, teachers, activities, and learning. Teachers sorted the statements the way they thought most students in the school would sort them. Students sorted them to describe their personal feelings. The teachers' sort was closer to that of students with low grades than to those making higher grades. They also related more closely with boys than with girls. In comparing with the student population as a whole, teachers significantly underrated students on--(1) the value students place upon learning, (2) their enjoyment of school work and extra work, and (3) the importance students give to school and its meaning to their future. (ERIC abstract)

PSL
Bes
Exc
Tem

16. Braun, S., Holzman, M., and Lasher, M. Teachers of disturbed pre-school children: An analysis of teaching styles. American Journal of Orthopsychiatry, 1959, 39, 609-618.

Purpose. To develop a method of analyzing teacher style that can point up significant and systematic differences in teaching styles in the therapeutic nursery.

Procedure. The findings presented were based on four 10-minute observations of 2 classes--two for each of two experienced teachers of disturbed pre-school children. Groups did not exceed five children. A trained observer made the following categorizations of behavior:

1. Teacher's actions
2. Teacher's verbalizations
    a) To whom teacher talks
    b) About whom teacher talks
3. Degree of responsibility toward a child which the teacher takes in actions and speech.

Analysis of observations was done by a social psychologist who had not visited the classroom.

Results. Descriptive findings based on style differences revealed by the coding procedure were presented. While one teacher seemed to stress class interrelationships, the second teacher emphasized individual relationships. Teaching style was hypothesized to be consistent with a particular philosophy in nursery school education.

This study represents a pilot effort. Further work must be done to validate the teaching style analysis method presented. This method has the advantage of simplicity and of allowing a researcher unfamiliar with the nursery school milieu and teaching philosophies to recognize the same stylistic differences apparent to professional observers who were very familiar with the teachers.

EPL
Ats
Bei
Pyg

17. Brophy, J., and Good, T. Teachers' communication of differential expectations for children's classroom performance: Some behavioral data. Journal of Educational Psychology, 1970, 61, 365-374.

Purpose. Since previous work demonstrated only the existence of teacher expectancy effects, the present study addresses itself to the intervening processes between the inducement of previous teacher expectations and criterion achievement test scores. Given differential teacher expectations, this study attempts to answer the question of how they are communicated to the children in ways that would tend to cause the children to exhibit complementary behaviors.

Procedure. The project was carried out in four first-grade classrooms in a small Texas school district. The ethnic distribution was approximately 75% Anglo-American, 15% Mexican-American, and 10% Afro-American. Teachers subjectively ranked their pupils regarding achievement and these rankings were used as a measure of teachers' expectations for classroom performance. Observational study in each class was carried out for the three boys and three girls high on the teacher's list (highs) and the three boys and three girls low on the list (lows).

Teachers were not aware that their own behavior and that of specific subgroups was being evaluated.

Only dyadic contacts between the teacher and the selected pupils were observed. Source of the interaction was coded. Questions, responses and feedback were rated along several dimensions allowing sequential examination of interactions.

Analyses of variance revealed two kinds of measures--one involving group differences attributable to objective differences in the pupil groups (non-expectancy effects), and a second set involving statistically controlled frequency differences permitting comparison of relative group differences interpreted as measures of expectancy effects.

Results. Notable in the measures of quantity and type of teacher-child contacts was the consistency and degree of expectancy group differences on variables measuring the tendency to seek out the teacher and initiate contact with her. Initiation of procedural and work-related interactions was exhibited more frequently by pupils for whom the teacher held high expectations (highs) than by pupils for whom the teacher held low expectations (lows).

Brophy, J. and Good, T.

Data for teacher initiated contacts are less clear but indicate that while the highs were called on more frequently to answer questions, teachers initiated more procedural and work-related interactions with lows and gave them slightly more response opportunities (though these differences were not significant). The only significant difference was that teachers more frequently criticized lows than highs. Boys in the low group were criticized more and hand-raised less than girls in the low group.

Group differences in quality of academic performance and in frequency of teacher praise and criticism indicate that teacher expectancy consistently predicts objective measures of classroom performance, objective achievement test scores, and rates of teacher praise and criticism.

Significant group differences on variables that were interpreted as indices of teacher expectation effects suggest that the teachers were systematically treating one group more favorably than the other. The data indicate that the teachers are generally more evaluative in responding to boys and more objective in responding to girls.

EPL
Ats
Bei
Dis

18. Brown, W.E., Payne, L.T., Lankewich, C., and Cornell, L.L. Praise, criticism, and race. Elementary School Journal, 1970, 70(7), 373-377.

Purpose. Three hypotheses were formulated to investigate the praise-criticism ratio in classrooms where the teacher's race differed from the pupils': 1) teachers of classes in which all pupils were of a different race than the teacher would tend to refrain from criticizing pupils because of the social situation and would make fewer critical remarks than teachers in classes composed of students the same race as the teacher; 2) teachers in an other-race class would make more praise remarks than teachers in same-race classes; and 3) number of pupil responses would be greater among children taught by an other-race teacher than a same-race teacher.

Procedure. Twelve teachers in the upper grades of an elementary school participated, six teachers teaching other-race classes and six teachers teaching same-race classes. Three white teachers had black pupils and three black teachers had white pupils. These six teachers were matched with teachers with same-race classes.

A 20 minute classroom discussion period was taped. Teachers were informed that classroom interactions were the subject of investigation. Pupil initiated responses were scored by various criteria. Teacher praise and criticism were scored by two independent raters using the Honigman system which includes four praise categories and three criticism categories. Teacher behavior was scored every ten seconds. Data were analyzed non-parametrically by the Mann-Whitney U Test.

Results. The results generally confirm the two hypotheses that there is more praise in other-race classes than in same-race classes ($p<.02$) and that there is less criticism in other-race classes than in same-race classes ($p<.09$), though the latter results must be interpreted with caution. It thus appears that classes where the teacher is of a different race than the pupils provide a more positive, encouraging environment as a result of teacher praise behavior. The praise-criticism ratio of the other-race classes was about 9:1 while the ratio of the same-race classes was less than 3:1.

The findings on pupil-initiated response, which is an indicator of classroom motivation, are important. In classrooms where praise was widely used, significantly more pupil-initiated responses occurred than in classrooms where praise was used with less frequency.

Brown, W.E., Payne, L.T., Lankewich, C., and Cornell, L.L.

Discussion centers on the implications of the above findings when issues of faculty integration, local community racial feelings, and the effect of local racial attitudes on other-race teachers are being considered. The heuristic value of this study seems to be great--especially in view of the position of certain community leaders that a teacher of the same race as the pupils automatically fosters a more optimal classroom learning environment than a teacher of a different race than the pupils.

Beb
Exc
Tem

19. Bullock, L. M., and Whelan, R. J. Competency needed by teachers of the emotionally disturbed and socially maladjusted: A comparison. Exceptional Children, 1971, 37 (7), 485-489.

Purpose. To determine how teachers currently involved in the education of emotionally disturbed children viewed the competencies which had been delimited by a previous study done 14 years ago.

Procedure. The subjects were 47 teachers of disturbed and maladjusted children in a midwestern state. Each was asked to complete an 88 item checklist called the Teachers Evaluation of Competencies (Mackie, 1957). Data of this study were compared with data of Mackie's original study.

Results. Comparison of the data indicates that this population did not view the competencies as being as important as did the Mackie group. These subjects viewed themselves as more proficient in the competencies than did the original group, and they tended to view themselves as being proficient in the items they deemed important.

EPL
Bec
Bev
Spe
Stu

20. Carline, J. L. An Investigation of the Relationships Between Various Verbal Strategies of Teaching Behavior and Achievement of Elementary School Children. Paper read at American Educational Research Association Meeting, 1970. ED 038 345

Purpose. The following hypotheses were studied: (1) that an in-service training program will modify teacher verbal behavior; and (2) that this modified teacher behavior will be associated with increased pupil achievement.

Procedure. Subjects were elementary school teachers of grades one through five and their pupils. An experimental (N=23) - control (N=20) group design was used. Pre-tests, administered soon after the opening of school, included intelligence tests and the Stanford Achievement Test in arithmetic (for students) and the Teaching Situations Reaction Test (for teachers). Teachers were also observed for six 15-minute sessions during mathematics classes. Control data revealed no significant group differences with respect to pupil ability, pupil achievement in mathematics, teacher response to the TSRT, and the 14 teacher behavior variables to be tested.

Experimental teachers underwent an intensive in-service training program during the first school semester. This program consisted of 14 instructional hours and experiences designed to create skill in the development of a positive social-emotional classroom climate. Teachers were trained in the use of the Flanders Interaction Analysis as a feedback technique and emphasis was placed on 14 behavioral variables to be "trained-in" or "trained-out." Ten trained and statistically reliable observers collected intermediate and post data on teacher behaviors during 186 hours of observation. Data were subjected to t-test analysis.

Results. The data indicated the rejection of the pupil achievement hypothesis. The in-service training program was apparently more successful in "training-in" behavior (5 out of 7 variables accepted), than in "training-out" (all 7 variables rejected) behavior. Though this study supports previous findings that an intensive in-service training program can change teacher behavior in a predicted direction, this research failed to show any connection between changed teacher behavior and increased pupil achievement.

Ats
Bep
Dis
Spe

21. Carter, T.P. et al. Value Systems of Teachers and Their Perception of Self, and of Mexican-American, Negro and Anglo Children. Symposium on Applications of Psychological Principles to the Classroom. Paper read at Rocky Mountain Psychological Association Annual Convention, 1969. ED 037 507

Purpose. The purpose of this study was to determine if teachers tend to project their values onto their perceptions of students.

Procedure. The subjects were 81 teachers enrolled in a six-week in-service training seminar in race relations.

Each received seven scales of Osgood's Semantic Differential (1957).

Results. The data indicate that teachers' perceptions of children are similar to how the teacher imagines and perceives him or herself.

Comment. Somewhat superficial approach.

JHL
Bei
Ber
Tem

22. Coats, W. Student Perceptions of Teachers - A Factor Analytic Study. Paper read at American Educational Research Association Convention, 1970. ED 041 302

As a result of behavioral science research cited in the introduction, the author concludes that (1) two basic factors, labeled teacher-centered and student-centered, account for much of the variance in student perceptions of teachers or (2) a single evaluative dimension may be an almost overwhelming factor in influencing responses to rating scales. This study attempts to determine the number and nature of factors which account for students' perceptions of teacher effectiveness. The Teacher Image Questionnaire, used by Western Michigan University's Educator Feedback Center, was sent to 1,427 teachers representing all academic fields in grades 7-12 from a five-state midwestern area. This procedure yielded 42,810 responses which were factor analyzed. A single factor, labeled teacher charisma, was found to account for 61.5% of the variance in test items. Five other factors accounted for the balance. It was concluded that teacher charisma is probably a function of teacher effectiveness, but that student ratings would best be used as only one part of a total evaluation package which measured additional variables. The limitations, strengths, and meaning of student reactions to teachers are discussed. A brief description of the work of the Educator Feedback Center is included. (ERIC abstract)

23. Cohen, A. M., and Brawer, F.B. The Dynamic Interaction of Student and Teacher. Los Angeles: University of California, 1971. ED 046 395

This topical paper discusses the concept of teacher-student interaction. In an attempt to apply the concept to junior colleges, the paper presents the findings of several research studies in which the types and extent of interaction have been assessed at other levels of schooling. Only a few of the ways in which teachers and students relate are considered: (1) relationship in class; (2) out-of-class contact; (3) potential effects of interactions on student attrition; (4) cognitive learning; (5) student development; and (6) faculty satisfaction. (ERIC abstract)

EPL
Bep
Stu

24. Cooper, J.G., and Bemis, K.A. Teacher Personality, Teacher Behavior and Their Effects upon Pupil Achievement. ED 012 707

Purpose. To examine the relationship between teacher personality and teacher behavior, and its consequent effect on students' achievement.

Procedure. The subjects were drawn from the school system of Albuquerque, New Mexico because of its wide range of ethnic and socioeconomic groups. Sixty fourth grade teachers received the Edwards Personal Preference Schedule (EPPS). Classroom behavior was evaluated according to the Teacher Observation Personality Schedule (TOPS). Their pupils' achievement was determined according to adjusted gain scores between the fall and spring testings on five subtests of the Scientific Research Associates Achievement Tests.

Results. Canonical analysis of the data indicates a relationship among these three sets of data. Conclusions drawn were as follows: (1) no single teaching behavior was detrimental or enhancing to learning; (2) the EPPS scores established a basis for predicting teachers' observed classroom behavior; (3) the pattern of prediction of behaviors did not closely follow that revealed as contributing to pupil gains; and (4) from EPPS, the more effective teachers may be described as critical, willing to accept leadership and interested in persuading and helping others.

The author states that the following paradigm was supported. "Teacher personality causes teacher behavior causes pupil behavior."

PSL
Bei
Dis
Spe

25. Cooper, M., and Thomson, C. Head Start Evaluation and Research Center, University of Kansas. Report No.1, The Observation of Reinforcement Behavior of Teachers in Head Start Classrooms and the Modification of a Teacher's Attending Behavior. Lawrence: University of Kansas Department of Human Development, 1967. ED 021 633

Two teachers were subjects of this investigation into the effect of various forms of feedback on the frequency of a teacher's attending to desirable child behavior. The feedback took three forms: (1) a report of the frequency of the teacher's attending to appropriate pupil responses, (2) a report of the frequency of attended and unattended appropriate pupil responses, and (3) "irrelevant" feedback in the form of observer questions or comments. Teacher A, who manifested the lower initial attending behavior during the baseline observation period, was given a training program while teacher B was given a control condition. Subsequently, Teacher B also received the training program. The study was conducted in two schools serving low income families in a large midwestern city. The results indicated that (1) both teachers increased in total attention to appropriate child responses during the training periods, Teacher A increasing more than Teacher B, (2) the children did not show a noticeable increase in average output of appropriate responses, (3) social attention by the observer did not, by itself, produce modification of teacher attending behavior, and (4) the increase in teacher attending behavior involved only appropriate child responses rather than all child responses. (ERIC abstract)

PSL
Ats
Bes
Stu

26. Cox, H.R. Effects of Maternal Attitudes, Teacher Attitudes, and the Types of Nursery School Training on the Abilities of Preschool Children, Final Report. Washington, D.C.: Catholic University of America, 1968. ED 028 844

The purpose of this study was to assess the importance of teacher attitudes, maternal attitudes, and traditional versus Montessori nursery school training on the learning and achievement of the preschool child. Eighty-two middle class children and thirty-eight disadvantaged children who attended either Montessori or traditional preschools comprised the sample. The children were tested in the fall on the Stanford-Binet and Peabody Picture Vocabulary Test and retested in the spring with the Caldwell Preschool Inventory and the Stanford-Binet. Teachers of nursery school classes completed the Minnesota Teacher Attitude Inventory, and mothers of the children completed the Maryland Parent Attitude Survey. Results of the study showed that middle class Montessori children scored significantly higher on personal-social responsiveness, associative vocabulary, and total test scores than middle class children in a traditional nursery school program. Disadvantaged Montessori children also obtained significantly higher scores than did their counterparts in a traditional program. Further findings indicated that democratic teacher attitudes were not highly related to preschool children's achievement and that maternal attitudes had no significant effect on the achievement of these children. (ERIC abstract)

27. Crispin, D. **Discipline behaviors of different teachers.** Contemporary Education, 1968, 39(4), 164-167. ED 027 237

A study was conducted to test the hypothesis that "the number of discipline behaviors by the teacher is a function of the personality of the teacher." "Behavior" was defined as "oral statements" and "discipline" as "the attempt of one to require another to discontinue inappropriate behavior." Trained observers used interaction analysis to record the behaviors of teachers in public school classrooms; behaviors were recorded at three-second intervals. "Discipline" was one of the types of behavior recorded. Three salient variables were posited: the teacher's behavior, the subject matter before the class, and the composition of the student population in the class. Three situations were found where each of these influences could vary while the other two could be controlled. The differences in number of discipline acts by teachers were tested by chi square. Although the number of classroom teachers and classroom situations observed was small, evidence was found that some teachers promote discipline problems through their own behaviors. It was also found that teachers tend to behave consistently: Teachers who employ a high number of acts of discipline with one class tend to do so with another, and teachers who tend to use no or few acts of discipline maintain that behavior when dealing with different classes and/or different subject matter. It is hoped that this pilot study will be replicated with larger numbers of teachers and that other relevant factors will also be researched. (ERIC abstract)

JHL
Ats
Bei
Dis

28. Datta, L. Sex and Scholastic Aptitude as Variables in Teachers' Ratings of the Adjustment and Classroom Behavior of Negro and other Seventh Grade Students. 1966. ED 028 206

Purpose. To investigate the influence of sex and scholastic aptitude on teachers' descriptions of the level of adjustment and classroom behavior of Negro and other seventh grade students.

Procedure. The subjects were 153 Negro and "Other" ("Other" being defined as those never attending an all-Negro school) seventh grade students from a northern Virginia suburban community. One teacher was randomly selected from each student's class schedule card.

The students' scholastic aptitudes were estimated by the California Mental Maturity Test IQ scores. The teachers were asked to rate each student's level of social adjustment based on a scale developed by Ullman (1952) and modified by Glidewell, Domkee and Kantor (1963). The teachers then rated each individual student according to the Classroom Behavior Inventory (CBI) developed by Schaefer, Aaronson and Burgoon (1966). The teachers were to respond to the 320 items in terms of whether they thought the behavior was very much like the specific child to not at all like the child.

Results. The data were tested by a 2x2x2 analysis of variance. Findings indicate that in the comparison of teacher descriptions of IQ equivalent subgroups, the effect of race tended to be related to scholastic aptitude and was not dependent on sex. Teachers describe higher IQ Negro students as favorably as higher IQ Other students but the lower IQ Negro student was more likely than the lower IQ Other to be seen as maladjusted, verbally aggressive, and low in task orientation. It was also indicated that boys were more often described as maladjusted, verbally aggressive, introverted and low task oriented than were girls.

EPL
Bei
Bes
Spe
Tem

29. Davidson, R. The use of interaction analysis in studying teacher influence on pupils' levels of thinking. Classroom Interaction Newsletter, 1970, 5, 26-39.

Purpose. The author reports that his study is based on the assumption that many teachers do not have a realistic understanding of their own teaching behavior and that teachers can make desired changes in the direction of fostering higher levels of pupil cognitive processing when specific teacher behavior feedback is provided.

Procedure. An eighty category interaction analysis system, divided into three types of teacher questions, two types of teacher talk, and three types of student responses, was developed. Data were obtained after the procedures of Amidon and Flanders. Twenty randomly selected teachers of grades two through six in the Denver public schools were divided into experimental and control groups. Teachers were told that the study dealt with improving children's critical thinking in the context of reading and were instructed to record a typical group discussion of a reading lesson with the objective of critical reading. Control teachers listened to their tapes played back while experimental teachers not only listened to their tapes played back but obtained feedback from studying interaction analysis data. Subsequent lessons from both groups were also analyzed with the interaction analysis system.

Results. Chi-square values for the control group on the three pupil response categories yielded non-significant results. Seven out of ten in the experimental group yielded significant chi-square values in the shift to more critical thinking responses, fewer literal comprehension responses, and fewer non-productive responses.

Wide divergence in teacher behavior and in teacher-pupil interaction patterns was found. In the control group, twice as much emphasis was given to fact questions as to thought questions and three times as much talk occurred in the literal comprehension response category as in the critical thinking response category. In the experimental group, somewhat greater emphasis was given to thought questions than to fact questions and there was a substantially higher number of critical thinking responses than literal comprehension responses. Comparison of matrices from individual lessons further demonstrates behavioral and interactional differences.

Davidson, R.

The data presented support the assumption that teachers have direct control over the kinds of questions discussed in the classroom, the quantity and quality of children's participation, and the stimulation of levels of thinking employed. Differences observed between pre-treatment and post-treatment lessons of individual experimental teachers raises the question of causality and modality of changes. This study demonstrated that interaction analysis data can be used in modifying teacher behavior and in influencing the level of childrens' thinking.

30. Davis, O.L. et al. Studying the cognitive emphases of teachers' classroom questions. Educational Leadership, 26 (7), 1969. ED 052 158

Recent interest in the direct, descriptive study of teaching has led to renewed attention to the types of questions asked by teachers. An important contributing factor has also been the progress made in the analysis of cognitive operations and the identification of a complex hierarchy of operations. Several observation systems developed from Bloom's taxonomy have been used by the authors to study the cognitive levels of teachers' questions. These studies pointed the direction toward research presently underway and planned. They also made possible the development of the Questioning Strategies Observation System, which records not only the cognitive levels of teachers' questions, but also other behaviors related to successful questioning strategies. The system has been designed so that it may be used both with live observation and with tape recordings of teachers' classroom verbal behavior. (ERIC abstract)

JHL
Ats
Dis
Pyg

31. Dietz, S., and Purkey, W. Teacher expectation of performance based on race of student. Psychological Reports, 1969, 24, 694.

Purpose. To determine whether or not classroom teachers held different expectations for the classroom performance of Negro students than for the performance of students not so identified.

Procedure. The subjects (N=147) were all white graduate education students at the University of Florida who had within the past two years been employed in classroom teaching.

Each received a descriptive paragraph about an adolescent boy indicating social and economic status, likes and dislikes, and school behavior record. Some subjects received the paragraph with the word "Negro" in front of the word "boy" in the first sentence. The subjects were asked to predict the boy's future scholastic performance according to a seven point scale that ranged from "far below average" to "far above average."

Results. Analysis of the data did not confirm the initial hypothesis. The authors state that this finding does not, however, nullify the "self-fulfilling prophecy."

PSL
Bes
Dis
Spe
Stu

32. Erickson, E.L. et al. A Study of the Effects of Teacher Attitude and Curriculum Structure on Preschool Disadvantaged Children, Annual Progress Report I.
Kalamazoo: Western Michigan University, 1968.
ED 027 079

This document is the first year's report of a continuing study of the effects of two Head Start preschool experimental programs. Subjects were children from poverty areas in Grand Rapids, Michigan. Seven teachers who were most opposed to a Bereiter-Engelmann type highly academic structured program were assigned to Group I; and seven teachers least opposed, to Group II for teacher training. Three teachers from Group II and four teachers from Group I were assigned to classes in Experiment A (Bereiter-Engelmann), and four teachers from Group II and three from Group I taught in Experiment B. Observation revealed that while there was more variation among B classes than among A classes, no classes in B were similar to classes in A, either in terms of content emphasis or predominant method of instruction. At the end of the program tests were administered to the children, and teachers and parents were inventoried. Experiment A appeared to overcome initially negative teacher attitudes. Students in Experiment A (with a mean IQ of 108.1) and Experiment B (with a mean IQ of 105.7) had a higher measured intelligence than the control group (with a mean IQ of 94.8). Results were reported as a statement of progress. (ERIC abstract)

JHL
Bep
Bev
Tem
Biology

33. Evans, T.P. An Exploratory Study of the Verbal and Non-Verbal Behaviors of Biology Teachers and Their Relationships to Selected Personality Traits. Columbus: Ohio State University, 1968. ED 027 201

Developed was a category system for first-hand systematic observation of the verbal and non-verbal behavior of high school biology teachers in both classroom and laboratory situations. This was used to investigate correlations between selected personality traits and the verbal and non-verbal behaviors of high school biology teachers. Some significant positive correlations between selected personality traits like (1) General Activity, (2) Restraint, (3) Ascendance, (4) Sociability, (5) Emotional Stability, (6) Objectivity, (7) Friendliness, (8) Thoughtfulness, (9) Personal Relations, and (10) Masculinity and certain verbal and non-verbal teacher classroom behaviors were found. (ERIC abstract)

Ats
Bep
Dis

34. Faunce, R.W. Attitude and Characteristics of Effective and Not Effective Teachers of Culturally Disadvantaged Children. Minnesota: Minneapolis Public Schools, 1969. ED 039 289

Purpose. To define and compare attitudes and characteristics of effective teachers of disadvantaged children with those of teachers who are not effective in this role.

Procedure. A questionnaire of 186 statements regarding culturally disadvantaged children, with a 4 point agree-disagree scale, was distributed to all teachers in the Minneapolis Public School System. About 62% responded. Additional information regarding teacher characteristics was obtained from personnel files. From this material a sample of 97 teachers not effective with disadvantaged children and 210 teachers effective with disadvantaged children was selected.

Results. Responses of effective teachers were consistently different from responses of not effective teachers on six of nine factors: (1) acceptance of the fact of physical deprivation, (2) belief that disadvantaged youth have been discriminated against by society, (3) stereotyping vs. restraint in labeling, (4) the attitude that it is pleasant to teach the disadvantaged, (5) punitive denial vs. non-punitive acceptance, (6) cultural denial vs. acceptance of the culture.

Ats
Dis
Pyg
Bibliography

35. Flaxman, E. A Selected Bibliography on Teacher Attitude. ERIC-IRCD Urban Disadvantaged. New York City: Columbia University, 1969. ED 027 357

Some of the works in this brief annotated bibliography present the findings of studies identifying the racial and social attitudes of the middle class urban teacher and indicate how these attitudes may affect student performance; others are reports of inservice teacher education programs conducted to change negative teacher attitudes; and a few are essays by prominent observers who broadly examine the importance of positive teacher attitudes and behavior in the inner-city classrooms. (ERIC abstract)

EPL
Bei
Pyg

36. Fleming, E.S. Teacher expectancy or my fair lady. *American Educational Research Journal*, 1971, 8, 241-252.

Purpose. To examine in an on-going school situation whether or not the self-fulfilling prophecy would operate when conventional educational measures and procedures were used.

Procedure. Subjects were 39 teachers and their 859 children. Eleven schools with 21 classrooms had high poverty indices and 11 schools with 18 classrooms had low poverty indices. In the fall, teachers answered a questionnaire to elicit the value (high, middle, low) they placed on intelligence tests, as well as personal background information. Subjects within classrooms were randomly assigned to 4 groups. Teachers received one of 4 kinds of test information for each group: IQ scores, no scores, Primary Mental Abilities percentiles, and IQ's inflated by 16 points.

In February, standardized achievement and self-concept testing was done as part of a larger study. In May, the Kuhlmann-Anderson Intelligence Test was readministered by the experimental team. Two classes of second grade children not previously involved in the experiment were retested with the Kuhlmann-Anderson to control for the Hawthorne effect. Teachers were again asked to complete a shortened form of the attitude instrument.

Results. The self-fulfilling prophecy did not operate. No significant differences were found among the four treatment groups. Significant differences were obtained for teacher opinion and socioeconomic factor ($p<.01$) as well as interaction of teacher opinion by socioeconomic factor ($p<.01$). Significant differences between the sexes were obtained at the .05 level favoring the girls. Children in middle socioeconomic schools had higher IQ scores with the difference more marked within the high teacher opinion dimension. Classes with high and middle opinion teachers had higher IQ scores than did the classes of low opinion teachers. Teachers were also asked to assess the accuracy of the various types of test information for their students. An overall analysis of variance within the basic design was performed and significant differences at the .05 level were obtained among the three IQ treatment conditions, eliminating the no information group.

EPL
JHL
Bes
Spe
Tem

37. Flynn, J. M. et al. An Analysis of the Role of the Teacher in an Innovative Prototype School. Part I. Final Report. Ft. Lauderdale, Florida: Nova University, 1969. ED 033 899

Phase I has been completed of a five-phase project to develop a model of teacher role behavior in individualized classrooms, to develop teacher training courses (including workshops) for behaviors specified by the role model, and to train teachers (inservice and/or preservice) to fulfill the role provided by the model. The classroom management characteristics of 36 teachers at Nova High School and two Nova elementary schools were studied through a systems analysis approach. The 36-teacher sample was a cross-section of classes ranging in teaching methods from quite conventional to very individualized approaches. An extensive observational instrument was developed to study the teachers' management behaviors and a companion instrument to study the student interaction and queueing patterns. Additional data were collected with the Verbal Interaction Scale (Flanders), the Multidimensional Analysis of Classroom Interaction (Honigman), and through interviews with teachers and staff. Analysis focused primarily on the individualized classrooms with various comparisons being made. A report was also developed on considerations for a computer simulation of the role model to be developed in phase 2; also a prototype training unit was prepared (on external motivation management) so that an inservice training workshop could be implemented in phase 2 for testing. Data collected in phase I provides a good base on which the role model can be constructed. (ERIC abstract)

38. French, R. L., and Galloway, C. M. A Description of Teacher Behavior: Verbal and Nonverbal. 1968. ED 028 134

Because of the need to describe and analyze nonverbal as well as verbal classroom interaction, an attempt has been made to develop an observational system of complete behavioral analysis using the Flanders system as a base. Each of the 10 Flanders verbal categories (based on direct and indirect teacher influence) is combined with relevant dimensions of nonverbal behavior on a continuum ranging from encouraging to restricting interaction. The categories are: (1) accepts student feeling; (2) praises and encourages (congruent-incongruent); (3) uses student idea (implement-perfunctory); (4) asks questions (personal-impersonal); (5) lectures or gives information (responsive-unresponsive); (6) gives directions (involve-dismiss); (7) criticizes or justifies authority (firm-harsh); (8) student talk, response (receptive-inattentive); (9) student talk, initiated (receptive-inattentive); (10) silence or confusion (comfort-distress). The Indirect-Direct/Encouraging-Restrictive (IDER) system encompasses instances in which only nonverbal behavior influences interaction and those in which nonverbal cues accompany verbal communication. By marking a slash (encouraging) or dash (restrictive) to the right of the recorded tallies, an observer can record both verbal and nonverbal dimensions within the three-second time intervals, and data can be plotted on an IDER matrix (four 10x10 quadrants) providing four areas of study. (ERIC abstract)

EPL
Bei
Bev

39. Friedman, P. Imitation of a Teacher's Verbal Behavior as a Function of Teacher and Peer Reinforcement. Paper read at American Educational Research Association Annual Meeting, 1971. ED 050 010

The extent to which a teacher served as a model for the verbal style of his students was examined with the use of a modified form of the Observation Schedule and Record 4V (OScAR). Four students from each of 24 first grade classes were separated into groups on the basis of frequency of teacher and peer reinforcement. Verbal characteristics of these students were scored using six scales of imitative behavior developed from the OScAR protocols. The data were analyzed using a 2x2 factorial design (teacher reward X pupil reward). Students observing high rewarding teachers imitated significantly more than those observing low rewarding teachers on 4 of 6 verbal categories. In three of the analyses differences between frequently and infrequently peer-reinforced students were located, and for three of the analyses there were also reliable teacher reward X pupil reward interactions. The potential of the OScAR for measuring student behavior and constructs such as limitation was demonstrated. (ERIC abstract)

JHL
Bes
Stu
Tem

40. Gage, N.L. et al. Explorations of the Teacher's Effectiveness in Explaining. Technical Report No. 4, Stanford Center for Research and Development in Teaching. California: Stanford University School of Education, 1968. ED 028 147

This document presents four correlated studies based on (1) the concept of "micro-criteria" which narrows the dimensions of investigating teacher effectiveness through the variable (explaining), the potential correlates (classroom behavior), and the rating of effectiveness (pupil achievement) and (2) data from an initial experiment in which 12th grade teachers taught two 15-minute lessons to their pupils who subsequently took a comprehension test and rated teachers and themselves on performance with an adapted Stanford Teacher Competence Appraisal Guide and Attention Test. Study 1 emphasizes the statistical methods used in determining the reliability, generality, and correlation (all found to be positive) of teacher effectiveness and performance. Study 2 investigates which type of lesson recording would yield ratings closest to actual classroom ratings and which teacher behaviors pupils observed with a free-response instrument. The latter investigation's finding, that good teaching and cognitive activities are consistently related, is supplemented in study 3 which categorizes 27 teachers behaviors (such as rule-example-rule presentation) in an attempt to apply objective measurement to rating teacher effectiveness. The final study discusses the use of computer programs to improve reliability in boring or complex tasks such as word counting. (ERIC abstract)

EPL
Bep
Spe

41. Gall, M.D., Borg, W.R., Kelly, M.L., and Langer, P. The Relationship Between Personality and Teaching Behavior Before and After Inservice Microteaching Training. Berkeley, California: Far West Laboratory for Educational Research and Development, 1969. ED 031 448

Purpose. The purpose of this investigation was to determine whether personality variables are correlated with certain teaching behaviors as measured before and after a minicourse (a self-contained package of instructional materials for teachers).

Procedure. The population was composed of 16 male and 32 female elementary school teachers. Each teacher, before taking the minicourse, received the Edwards Personal Preference Schedule (EPPS) and Rokeach Dogmatism Scale. The EPPS measures 16 personality needs and the Rokeach purports to measure level of closed-mindedness or authoritarianism.

Teaching behaviors were video taped before and after the minicourse and were scored by trained raters on six classroom behavior categories.

Results. Seventeen personality variables were correlated with the six teaching behaviors, before and after the minicourse. Analyses of the data indicate that teaching behaviors of the females were not influenced by their personality, either before or after the minicourse. Male teachers, on the other hand, indicated a prior significant effect of personality on their teaching behavior. After the minicourse, male teachers indicated that the effect of personality on teaching behavior decreased considerably.

Authors' stated shortcomings of the study: no control group and behavior sample small.

Ats
Bei

42. Gallagher, B. Teachers' attitudes and the acceptability of children with speech defects. Elementary School Journal, 1969, 69(5), 277-381.

Purpose. To investigate the effect of teachers' attitudes on children's responses to the defective articulation of a child their own age.

Procedure. The population studied was a group of 640 first grade males and females from a public school in an eastern suburban area of middle socioeconomic status. Teachers were asked to comment on four statements while students heard tape recordings and were asked to answer four questions based on what was heard.

Results. Findings indicate that the differences in the students' responses to those with speech problems is related to their teacher's attitudes. Teachers who do not express any particular attitude toward a child with an impediment seem to create the most peer-accepting environment. Teachers who require high standards on verbal behavior and performance create the least peer-accepting environment.

Comment. This study indicates the power of persuasion that teachers have in the classroom--especially in the earlier years.

PSL
Bes
Dis
Spe
Tem

43. Garfunkel, F. Head Start Evaluation and Research Center, Boston University. Report A-II, Observation of Teachers and Teaching: Strategies and Applications. Massachusetts: Boston University, 1967. ED 022 558

There are reasons why teaching behavior should be assessed, including (1) upgrading teacher education, (2) gaining insights into the learning of both teachers and children, and (3) studying social interactions. Two means of assessing teacher ability are quantification of teacher behavior by the use of rating scales, behavioral categories, etc., and participant observation (PO). The first, assessment by instrument, confounds the effects of too many interacting variables for the instrument to reliably represent the effects of teacher behavior. In the PO method, very well qualified and trained people are the assessing instrument. Observer judgment and observer influence upon the classroom situation are present, but if the observer is well qualified and well trained, as he must be for the success of the method, the data obtained should be more reliable and more relevant. Filming the classroom situation can also be used and adds much to the assessment process. The PO approach was tested on selected Head Start and elementary school classes. The data analysis from this testing is incomplete. It has been found, however, from a combined PO and filming of suburban and inner-city (Hartford, Connecticut) elementary classes, that suburban classes are uniformly superior to inner-city classes. (ERIC abstract)

EPL
Bei
Pyg

44. Goodwin, W.L., and Sanders, J.R. An Exploratory Study of the Effect of Selected Variables upon Teacher Expectation of Pupil Success. Paper presented at American Education Research Association Annual Meeting, 1969. ED 029 826

A study was conducted to determine what variables are prepotent in establishing a teacher's expectancy for a pupil. Seven 20-minute experiments were conducted using a sample of 84 teachers who were randomly assigned to an experimental treatment and then reassigned for each subsequent experiment regardless of their previous assignment. Treatments consisted of presenting hypothetical students' cumulative folders to the subjects. Based on the information therein, subjects answered six questions (each with five possible responses) involving their expectations for the academic performance of that student. In any given experiment, the information in the folders was identical for all subjects with two exceptions: grade level (first or sixth) and one of the other variables (IQ, grade average, sex, chronological age, standardized test performance, anecdotal records, or socioeconomic background) which were systematically introduced and varied, each in a separate experiment. Data resulting from subjects' composite scores on the six criterion questions constituting the dependent variables were analyzed by analysis of variance, and multiple comparison tests (Newman-Keuls) were run. It was inferred that IQ, course grades, standardized test results, and socioeconomic background are perceived by teachers as the characteristics on which they can most validly base their expectations of students' performance. Findings stress the importance of training teachers in measurement and interpretation of socioeconomic information. (ERIC abstract)

PSL
Ats
Bei

45. Gordon, E.M., and Thomas, A. Children's behavioral style and the teacher's appraisal of their intelligence. Journal of School Psychology, 1967, 5(4), 292-300.

Purpose. To test the hypothesis that teachers tend to overestimate the intelligence of children who react positively and quickly to new situations, and to underestimate the intelligence of children who react negatively to most new situations.

Procedure. The subjects were all enrolled in the kindergarten classes of the Anna C. Scott School, Leonia, New Jersey. The two teachers each had 30 years of kindergarten teaching experience.

The teachers were asked to categorize each child's characteristic mode of reaction to new activities and situations in the classroom based on "Quality of Participation" definitions. The teachers were then asked to evaluate each student's IQ.

Results. A correlation between Quality of Participation and Kulmann-Anderson IQ's was found to be significant. The correlation between the teachers' categorization of Quality of Participation and their estimates of the children's intelligence was positive and significant, r=.53 and .58. Statistical analysis indicates that the hypothesis is valid.

Bei
Bep
Spe
Tem

46. Gotts, E.E. Factors Related to Teachers' Irritability in Response to Pupil Classroom Behaviors. Paper read at American Psychological Association convention, 1967. ED 015 495

A 158 item survey, the Behavior Classification Checklist (BCC), was constructed to measure the variability in intensity reaction to pupil classroom behaviors. The nine scales obtained by factor analysis were explored to check their construct validity against other measures and other information on the subjects. When special school personnel and teachers in the same schools were compared on irritability in regard to the nine categories, special personnel were found to view the problems as less irritating. A Need For Assistance inventory (NFA), which allows teachers to express their need for aid in regard to certain pupil behaviors, and the BCC were administered to teachers involved in Headstart programs. From the NFA, eight scales were factor analyzed. In general, comparisons of the expressed needs of teachers and the categories of pupil behavior found most irritating yielded several significant correlations. Because of the high intercorrelations of the BCC scales, higher order factors were investigated and two were obtained (an agressive factor and a withdrawn, compliant factor). More research is needed. The BCC requires still more adequate validation data. (ERIC abstract)

EPL
Ats
Bei
Dis

47. Groff, P.J. Dissatisfactions in teaching the CD child. *Phi Delta Kappan*, 45(2), 1963. ED 020 228

According to a survey of 294 elementary school teachers in 16 schools serving disadvantaged pupils, high teacher turnover is prompted by the "peculiarities" of the disadvantaged student, by administrative and organizational deficiencies in the schools, and by the teachers' own shortcomings. To reduce the rate of turnover, four educational improvements are suggested. They include--(1) reduction of class size, (2) reconstruction of curriculum and teaching procedures, (3) administrative support for teachers with discipline problems, and (4) judicious selection of teachers according to experience, willingness, and lack of prejudice. Also, teacher education colleges should train students to work with disadvantaged pupils. (ERIC abstract)

EPL
Bei
Pyg
Stu

48. Gumpert, P., and Gumpert, C. The teacher as Pygmalion: Comments on the psychology of expectation. Urban Review, 1968, 3(1), 21-25. ED 023 774

Although this review of "Pygmalion in the Classroom," an experimental study of the effect of positive teacher expectations on the intellectual development of their disadvantaged students, generally affirms the findings of the experiment, it points out that (1) since the average improvement of the experimental elementary school children was strongly associated with the improvement of the control children in the same classroom, the unit of analysis should have been the average intellectual gain of the children in the classroom as a whole rather than the gain of the individual child, and (2) in presenting their findings the experimenters suggested only the probable stability of their results but did not account for the apparent magnitude of their variables in the total context of their research. The review also speculates about how the teachers fulfilled the prophecy that positive expectations would increase student intellectual gains, particularly how they may have interpreted ambiguous events to confirm their positive attitudes and how increases in their interpersonal warmth may have lead to superior student performance. (ERIC abstract)

CUL
Bei
Ber
Bes

49. Hall, D. The effect of teacher-student congruence upon student learning in college classes. Journal of Educational Psychology, 1970, 61, 205-213.

Purpose. This study tests the hypothesis that the higher the congruence is between a teacher's behavioral style and the student's conception of the ideal instructor's type, the greater will be the student's reported learning. It is further hypothesized that the ideal - actual teacher style congruence will correlate higher with learning than will either actual teacher style or ideal style alone.

Procedure. Twenty-two small university undergraduate humanities and social science classes were sampled. Questionnaires were given to the 238 students in these courses. Teacher style and ideal teacher style were evaluated with 35 items covering a typical range of teacher behaviors. Factor analysis of principal components yielded seven meaningful factors. Learning was measured by 26 items describing the student's perceptions of what he learned from the course which yielded six scales for these items when factor analyzed. Degree of congruence was then computed.

Results. The hypothesis was not confirmed. The actual teaching style of the instructor was in general a better predictor of learning than were the congruence scores or the student's ratings of ideal instructor behavior. These negative findings are compared to Pervin's positive findings of person-environment fit. Differences are discussed in terms of the variances and validity of the constructs used, the nature of the environment studied, the constructs measured, and the instruments employed.

PSL
Bed

50. Harris, F.R. et al. Effects of adult social reinforcement on child behavior. Young Children, 20(1), 1964.
ED 019 997

In an attempt to modify or substantially reduce undesirable behavior in nursery school children, a teaching technique was introduced wherein the teacher would attend to the child only when the child was manifesting acceptable behavior and would ignore the child when he was manifesting undesirable behavior. It would then be possible to determine the effect on children's behavior of teacher attention, representing positive reinforcement. When the particular child consistently manifested the desired behavior to the exclusion of the undesired behavior, the teacher technique of attending to the acceptable behavior of children and ignoring undesired behavior was reversed. If the child then reverted to the undesirable behavior, the teacher reestablished the desired behavior. These manipulations demonstrated the validity of the independent variable, teacher attention, as a significant influence upon child behavior. Five case studies of nursery school children with particular behavior problems indicated that the teacher technique successfully altered the undesired behavior, which included crying spells, isolate play, and excessive passivity. In each case, by ignoring the undesired behavior and reinforcing the desired behavior, the latter behavior changed from subordinate to dominant. It must be understood, however, that to achieve success with this technique, the attention of the teacher must be positively reinforcing to the child. (ERIC abstract)

PSL
Bec
Bep
Spe

51. Harvey, O.J. Teachers Belief Systems and Preschool Atmospheres. Boulder: Colorado University Extension Division, 1965. ED 014 320

Purpose. To determine the effect of a teacher's belief or conceptual system on the teaching method used and the classroom atmosphere.

Procedure. The subjects were 30 female teachers, participating in the Head Start training program conducted by the University of Colorado Extension Division, who were selected on the basis of their performance on the "This I Believe Test" (TIB). To further test the level of abstractness-concreteness the Conceptual Systems Test (CST) was administered to the subjects. The CST deals with four major areas composed of items to which the subject responds on a six-point range from complete agreement to complete disagreement. On the basis of these test results the subjects were divided into three categories according to concreteness-orientation, abstractness-orientation, or in between concreteness and abstractness-orientation.

The subjects were then observed while teaching their preschool students and were rated according to a 26-dimension chart of desirable or undesirable teacher traits.

Results. Analysis of the variables supports the initially stated hypothesis that concreteness-oriented subjects would score lowest on desirable traits and highest on undesirable traits; abstractness-oriented teachers would score highest on desirable traits and lowest on undesirable traits; and the in-between group would score in the middle.

JHL
Bec
Bes
Tem
Science

52. Hassard, J.R. An Investigation of Teacher and Student Behavior in Earth Science Classrooms. Columbus: Ohio State University, 1969. ED 041 781

A category system was developed for describing the classroom behavior of earth science teachers. Video tape recordings were made of a random sample of 16 junior high school science teachers in Franklin County, Ohio. Classification of behaviors resulted in four major dimensions: Content Development, Management, Facilitating, and Classroom Climate. Twenty-nine subcategories were identified, each of which included both verbal and non-verbal behaviors. Four indices were developed by combining subcategories and expressing behaviors as ratios: Climate index, Process index, Interaction index, and Instructional index. The instrument was field tested in eight ninth grade earth science classes, together with an instrument developed in a companion study for describing student behaviors. Two sets of video tape equipment were used for simultaneous recording of the behavior of the teacher and a sample of students. Teacher behaviors are described in terms of the instrument, and significant correlations between teacher and student behaviors are reported. (ERIC abstract)

Bev
Tem

53. Heger, H.K. Analyzing Verbal and Nonverbal Classroom Communications. 1968. ED 025 483

The Miniaturized Interaction Analysis System (Mini-TIA) was developed to permit improved analysis of classroom communication in conjunction with video taping. Each of seven verbal event categories is subdivided into two categories according to the nature of the nonverbal events paralleling them. Integrated into the system are (1) defined verbal and nonverbal dimensions; (2) categories reflecting the personal, content, and institutional aspects of classroom tasks; (3) categories designed to permit encoding on purely behavioral evidence; and (4) categories which are few in number, symmetrical, and easy to use. Categories were developed from three key concepts about teaching: (1) Both teachers and students have classroom roles; these include, for teachers, an institutional or control role, a knowledge conveyance role, or a role as developer for student personalities, and for students, a learner role as a developing personality. (2) The interaction process is the sum of verbal and nonverbal events, usually in some combination. (3) Work with Flanders' Interaction Analysis System has demonstrated the desirability of maintaining the direct-indirect teaching concept. Preliminary work with Mini-TIA has demonstrated that the system is functional and effective in focusing the attention of education students on key behaviors. Also, Mini-TIA permits statistical computation of observational data. (ERIC abstract)

PSL
Ats
Beb
Dis
Spe

54. Helge, S., and Pierce-Jones, J. *The Relationship Between Specific and General Teaching Experience and Teacher Attitudes Toward Project Head Start*. *Part of the Final Report*. Austin: Texas University Child Development Evaluation and Research Center, 1968. ED 025 323

One hundred and forty-five Head Start teachers, from lower-middle class families, attended a workshop in 1965 before working in the Head Start program. During the workshop and again in 1967 they filled out autobiographical and experience forms. The forms were used to test three hypotheses regarding differences associated with differential teaching experiences. Teachers were grouped according to their years of teaching experience and type of experience; i.e., general or with the culturally deprived. Results by analysis of variance indicated significant differences between groups of teachers on variables measuring teachers' perceptions of the effectiveness and acceptance of Head Start, their awareness of the effects of cultural deprivation, their perceptions of their success as Head Start teachers, and a comparison of Head Start and non-Head Start children from similar environments. Generally, the more general the experience, the more stable and positive were the teacher attitudes. The same was true with teachers with no experience or six or more years of specific experience. Due to cognitive traces from previous experience, experienced teachers had greater insight into problem areas and could more easily incorporate new experiences with the culturally deprived. All attitudes of all groups were positive. Areas for additional research in this subject are suggested. Ten tables and several graphs are given. (ERIC abstract)

55. Hooley, T.M., and Jones, C. The influence of teacher attitude on student attitude in a programmed learning situation. Programmed Learning & Educational Technology, 1970, 7(3), 189-193.

Purpose. To establish whether or not instructor attitude influenced student performance when learning from a program.

Procedure. Three matched groups of students were presented a mathematics program. The introduction to the program was designed so that one group felt the instructor to be favorably disposed to programmed instruction; one group had a neutral instructor; and the final group had an instructor who presented himself as not favorable to the program. Analysis of variance between the groups indicated no significant differences in achievement as measured by a criterion test. The students were given an attitude questionnaire consisting of 28 paired-opposite statements using forced choice.

Results. While significant differences were found between the groups, the fact that the variance was reduced to two items on the questionnaire, and that one of those had a trend opposite to that expected, limits the value of the results.

EPL
Bec
Bei
Bes

56. Hudgins, B., and Ahlbrand, W. Some properties of formal teacher and pupil classroom communication. Psychology in the Schools, 1970, 7, 265-268.

Purpose. Past studies have shown that student school anxiety (SSA) levels are influenced by reinforcement effects of teacher behavior. The present research investigates the hypothesis that the net level of teacher reward correlates inversely with classroom SSA levels.

Procedure. Teacher volunteers (N=14) from three Tucson, Arizona elementary schools participated. The SSA results are based on 443 children in heterogeneously-grouped classes. Observers using the Flanders' Interaction Analysis collected data on two 2-hour occasions (T1 and T2) with an eight week interim period. The Flanders' scale yielded two measures of teacher reinforcement: (1) reinforcement minus punishment (R-P) which was derived from Flanders' categories one, two, and three for reinforcing qualities, and categories six and seven for punishing qualities; and (2) a praise minus criticism (P-C) index derived from Flanders' category seven minus category two. The anxiety measure was the 105-item School Anxiety Questionnaire (SAQ). A cross-lagged correlation design was employed to establish the effect of the teacher behavior variable. It was hypothesized that the correlation between the two reinforcement indices from T1 with SSA taken at T2 would be higher than the same reinforcement indices from T2 with SSA taken at T1.

Results. The T1 data indicated a significant negative correlation between a teacher's R-P index and his class' SAQ mean and between a teacher's P-C index and the T1 SAQ class mean. The difference between the cross-lagged correlations for the R-P index was opposite to the hypothesized directionality between teacher behavior and SSA.

Comments. The results are not discussed at all except to say that teachers should be aware of the effects of their reinforcing behavior on SSA level. Interpretation of the results is, unfortunately, left up in the air. The focus of this study appeared to be statistical as several additional empirical techniques were employed in investigating various minutae.

Bep
Bev

57. Hunt, J.E., and Germain, M.S. The Critical Thinking Ability of Teachers and Its Relationship to the Teachers' Classroom Verbal Behavior and Perceptions of Teacher Purposes. Paper read at American Educational Research Association 1969 Conference, 1969. ED 030 625

To examine the relationship between a teacher's critical thinking ability and his classroom verbal behavior and perception of teaching purposes, 39 teachers first completed the Watson-Glaser Critical Thinking Appraisal. The 10 highest and 10 lowest scorers were then observed and video taped in their classrooms during three one-half hour periods, and their transcribed verbal behaviors were classified according to amount of student support and type of thought process (routine, cognitive memory, and convergent, evaluative, or divergent thinking). Finally, the 20 participants completed 10 questions about their teaching purposes and learning goals. Analysis of data revealed that teachers who had scored highly in critical thinking made a significantly greater number of comments in the categories of convergent, evaluative, and divergent thinking, and in support of students than did teachers with low critical ability; their stated purposes and goals were also more manifest in the classroom and were both academically oriented and student-centered. If training students in critical thinking is the central purpose of schools (and research indicates that critical thinking ability can be taught), then teachers need to be trained as models of such thinking during their own preservice or inservice education. The question remaining is who will teach the teachers' teachers? (ERIC abstract)

58. Jackson, P.W., Silberman, M.L., and Wolfson, B.J. Signs of personal involvement in teachers' descriptions of their students. Journal of Educational Psychology, 1969, 60(1), 22-27.

Purpose. To test certain hypotheses about elementary school teachers' attitudes toward various behaviors students manifest and the effect of these attitudes upon teacher-pupil perceptions and personal involvement.

Procedure. The subjects were 32 third grade teachers from suburban Chicago communities. Each teacher was asked to recall the boys and girls in the class and describe those who were mentioned first and last (or who were forgotten completely). The content of 128 descriptions was analyzed for signs of personal involvement.

Results. Boys received more such indicators of personal involvement with the teacher than did girls and the descriptions contained more negatively toned statements than did those of girls. Students remembered first also received more indicators of involvement than those recalled last or not at all.

Findings indicate the relationship between teachers' differential perception and treatment of their students and certain student attributes.

PSL
EPL
Bei
Bes
Stu

59. Jester, R., and Bear, N. Preliminary Results from Relationship Between Teachers' Vocabulary Usage and the Vocabulary of Kindergarten and First Grade Students. Paper read at American Educational Research Association Meeting, 1969. ED 032 135

To examine the relationship between the vocabulary teachers use in the classroom and the percentage of that vocabulary understood by the students, 16 volunteer teachers were tape recorded for an hour and a half during a normal day's activities. Half the teachers were from lower or lower middle class families; the other half were from middle and upper class families. From the tapes a work list was compiled for the first grade teachers and another for the kindergarten teachers. Vocabulary tests of 50 words each were then derived from the word lists and given to the children. A maximum effort was made to draw out the knowledge of word meanings. Analysis of the data indicated that the percentage of words used by the teachers and known by the students was generally quite high indicating that teachers might use more difficult words to build vocabulary. Social class, race, and grade breakdowns sometimes resulted in samples too small to be significant, and trends were not always substantial but the percentage of teachers' words known to youngsters seems to vary with social class, race, and grade. The effect of the experimental situation on the teachers' vocabularies was not calculated. (ERIC abstract)

Ats
Bes

60. Johnson, R.S. A Comparison of English Teachers' Own Usage with Their Attitudes Toward Usage. (Ed. D. dissertation, Columbia University) 1968. ED 046 963

In spoken and written situations which focused the teachers' attentions on information rather than on their language, samples of 100 English teachers' actual language were obtained with respect to five debatable usages: "everybody...their," "reason...is because," "who" as an object pronoun, "will/would" with the first person subject to express futurity without determination, and "myself" as a non-reflexive, non-emphatic object pronoun. The majority of teachers expressed disapproving attitudes toward four of the five usages for both speech and writing. Nonetheless, 99% of the teachers were found to use at least one of the "incorrect" usages, each of the "incorrect" usages was used by a majority of teachers in their speech, and three of the usages were used by a majority of the teachers in their writing. Moreover, 94% of the teachers used at least one of the "incorrect" usages that they themselves disapproved of and would correct in their students' work. However, when the teachers were alerted to the discrepancies between the language they teach as correct and the language they use, 99% of the teachers expressed a willingness to change their attitudes toward language correctness and to modify their teaching accordingly. (ERIC abstract)

EPL
Ats
Bep
Exc

61. Jordan, J.E., and Proctor, D.I. Relationships between knowledge of exceptional children, kind and amount of experience with them, and teacher attitudes toward their classroom integration. Journal of Special Education, 1969, 3, 433-439.

Purpose. To investigate attitudes of teacher groups toward the educational placement of children with behavior disorders or assorted physical handicaps, and to study the relationship of these attitudes to knowledge of disabilities and to type and amount of teaching experience.

Procedure. Two independent variables — amount of "realistic" acceptance by teachers of classroom integration of exceptional children and amount of knowledge of disabilities — were measured with The Classroom Integration Inventory (CII) and The General Information Inventory (GII) (Haring, 1958). Four variables were selected as determiners of teacher responses: (1) type of teaching contacts, (2) amount of teaching experience, (3) amount of academic credit, and (4) type of consultation experience.

The Pearson PM Correlation was used to ascertain the relationship between CII and GII scores. A one-way analysis of variance was used to analyze the relationships between the two dependent measures and the four independent variables. The sample consisted of 6 student teachers, 10 ancillary personnel and 138 classroom teachers.

Results. The special education teachers were significantly better informed than the regular teachers, but did not have more "realistic" attitudes toward classroom integration. Teachers with extensive academic credit in courses related to exceptional children were more knowledgeable about them. Academic course work was the only variable which was significantly predictive of both CII and GII scores.

EPL
Pyg
Stu

62. José, J., and Cody J.J. Teacher-pupil interaction as it relates to attempted changes in teacher expectancy of academic ability and achievement. American Educational Research Journal, 1971, 8, 39-49.

Purpose. To determine if student scores on IQ and achievement tests change after false information concerning these students is given to the teacher and whether the teacher's behavior toward these students changes.

Procedure. Subjects were 18 first and second grade teachers and 144 students (eight from each classroom). The study was presented to teachers as two separate investigations: (1) a testing program to identify "late bloomers" and (2) an analysis of teacher-pupil interaction. The Test of General Ability (Flanagan, 1960), an IQ test, and the Metropolitan Achievement tests in reading and arithmetic were given to all students in the 18 classrooms. From this population, 4 experimental and 4 control students were randomly selected. A premeasure of teacher behavior was obtained by three trained observers using the Interaction Analysis Scale adapted from Bales (1960) scale. The teachers were then given information that the four experimental students had scored high on a test predicting "academic blooming" and were expected to perform better academically in the near future. Observations of teacher behavior were made after one week and every four weeks thereafter for a period of 16 weeks. Post-tests of the Test of General Ability and the Metropolitan Achievement Tests were then administered to experimental and control students.

Results. A significant change in grade level on all three tests was found for both groups ($p < .05$). There was little consistency in the direction of change in teacher behavior and few differences in teacher behavior after receipt of the false information. Any behavior change tended to be in the same direction for both experimental and control students. There was no significant advantage, in terms of grade improvement, in the teachers' favorable expectations. At the end of the experiment the teachers were given a questionnaire concerning their opinions of the experimental children. Eleven of the 18 teachers had not expected more from the children. Seven had expected the children to improve, but only four felt the children had actually shown improvement.

PSL
EPL
Ats
Beb
Exc

63. Kay, B.R., and Lowe, C.A. Teacher nomination of children's problems. A rolecentric interpretation. Journal of Psychology, 1968, 70(1), 121-129.

Purpose. This investigation studied the relationship of several teacher characteristics to the frequency with which these teachers designated emotionally troubled students. It was hypothesized that students referred to would be those exhibiting behaviors contrary to the self-expectations of the teacher.

Procedure. The subjects were 97 percent of the teachers from kindergarten through sixth grade in the State of New Hampshire. Each teacher received a questionnaire and was asked to indicate the number of retarded students in his or her class and among this population the number which acted out or were emotionally troubled. Later, a sample population of the teachers was interviewed to check reliability and validity of teacher nominations.

Results. Statistical analysis supports the theory that teachers evaluate pupil behavior in terms of their own perspectives and that the evaluation will vary with the teachers' sex, age, level of education, and experience.

EPL
Ats
Com
Stu
Arithmetic

64. Keane, D.F. Relationships Among Teacher Attitude, Student Attitude, and Student Achievement in Elementary School Arithmetic. (Ph.D. dissertation, University of Florida) 1968. ED 055 774.

A descriptive study of the relationships among teacher attitude, student attitude, and student achievement in arithmetic is reported. Data were obtained from 679 students of 32 teachers selected for their positive or negative preferences for teaching mathematics. The students were tested for attitudes the following year. Findings indicated: (1) data were inconclusive for relation between teacher attitude and student attitude toward arithmetic; (2) teacher attitude has no effect on student achievement; (3) there is no relationship between student attitude and achievement; and (4) economic environment affects student attitude toward arithmetic but not achievement. (ERIC abstract)

CUL
Bei

65. Klein, S. Student influence on teacher behavior. *American Educational Research Journal*, 1971, 8, 403-421.

Purpose. To determine the influence of students on teacher behavior, the following hypotheses were examined: (1) Teacher behavior changes as a function of changes in student behavior; (2) Teacher behavior is more positive (a) during periods of positive student behavior than during periods of negative student behavior, (b) during periods of positive student behavior than during periods of natural student behavior, and (c) during periods of natural student behavior than during periods of negative student behavior.

Procedure. Guest teachers in 24 college education classes were the subjects while the regular students in the classes acted as experimenters. The 24 college teachers ranged from graduate teaching assistants to full professors in six universities. Guest teachers lectured classes in their fields and were not aware of the experiment.

Each experiment lasted one hour and was divided into four 15 minute periods consisting of positive and negative treatment periods and two control periods during which the student experimenters changed behaviors. Positive student behaviors included smiling, looking at the teacher, and responding to the teacher's questions quickly and correctly. Some negative behaviors were frowning, looking out the window, and talking with classmates. Sequences of behavior were randomized. Verbal behavior of teacher and students was tape recorded while non-verbal behavior was recorded by observers. Tapes were analyzed by the Flanders' Interaction Analysis. The Visual Observation Schedule (VOS) of teacher behavior and the Pupils Exercise Reinforcement (PER) instruments were used to categorize teacher and student verbal and non-verbal behaviors.

Results. The first hypothesis was supported since the teachers appeared to change their verbal and non-verbal teaching behaviors when the students changed their experimental behaviors. Comparison of means of teachers' behaviors during the positive, negative, and control periods indicated that teachers behaved more positively during periods of positive and natural student behavior than during periods of negative student behavior, thus supporting the 2a and the 2c hypotheses. No significant differences in teacher behaviors appeared during the positive and natural treatment periods indicating that student behavior during the control periods was more similar to student behavior in the positive treatment periods than in the negative treatment periods. Teacher use of direction and criticism was greatest during negative treatment periods. It was suggested that a class may become more productive if students are taught how their behavior influences the behavior of their teachers. Students can then be encouraged to assume responsibility for their own behavior and help their teachers become more effective.

EPL
Ats
Bei

66. Kranz, P.L. et al. The Relationships Between Teacher Perception of Pupils and Teacher Behavior Toward Those Pupils. Paper read at American Educational Research Association Meeting, 1970. ED 038 346

A study attempted to determine whether there are significant differences between substantive, positive appraisal, negative appraisal, and managerial behaviors a teacher exhibits toward pupils he perceives to be of high, average, and low academic potential and of high, average, and low achievement level. Ten null hypotheses were formulated to answer the questions. Independent variables were high, average, and low teacher perceptions of pupil academic potential and pupil achievement; dependent variables were the substantive, positive appraisal, negative appraisal, managerial, and total teacher verbal behaviors. Subjects were 11 urban elementary teachers and their 285 pupils. Teacher verbal behavior data were collected through classroom observation (150 minutes per class) using a modification of the Observational System of Instructional Analysis (Hough and Duncan, in press); data included identification of pupils who were the object of each individually-directed teacher behavior. Data were collected from each teacher regarding his perceptions of the relative academic potential and achievement level of each pupil. Statistical analyses included chi-square, Spearman rank correlation coefficients, and Kendall coefficients of concordance. In general, findings suggest relationships between the perceptions a teacher has regarding a pupil and the kinds and frequency of certain teaching behaviors he directs toward that pupil. (ERIC abstract)

CUL
Bei
Ber
Stu

67. McKeachie, W.J., and Lin, Y. Sex differences in student response to college teachers: Teacher warmth and teacher sex. American Educational Research Journal, 1971, 8, 221-226.

Purpose. To determine whether sex differences exist in student response to sex of teacher and degree of warmth of teacher.

Procedure. Subjects were students in large multi-section freshman-sophomore courses (no N given). The measure of teacher warmth was the mean student rating of a teacher on opinion measures of friendliness.

Two types of outcome measures were used: course grades and achievement tests (specifics not given).

Results. Higher grades given by warm female instructors can be justified in terms of their greater effectiveness as indicated by achievement test scores. With male teachers, high teacher warmth results in relatively high achievement for women students, but not for men. For women instructors, high warmth teachers seem to be more effective with both sexes. Low warmth women with low achievement standards were the least effective of any teachers.

CUL
Ber
Stu
Tem

68. McKeachie, W.J., Lin, Y., and Mann, W. Student ratings of teacher effectiveness: Validity studies. American Educational Research Journal, 1971, 8, 435-445.

Purpose. The authors' hypothesis was that out of Isaacson's six factors of student ratings of instructors and instruction (Skill, Overload, Structure, Feedback, Group Interaction, and Student-Teacher Rapport), the "Skill," "Group Interaction," and "Feedback" factors would be positively related to teacher effectiveness. Five studies concerning this hypothesis were presented.

Procedure 1. In the first study 297 male and 392 female students of 17 teachers of general psychology classes participated. The student evaluation of teaching form had 46 items comprising the six Isaacson factors. The Introductory Psychology Criteria Test was used as an index of student learning.

Results 1. In addition to "Skill," "Interaction" and "Feedback", "Rapport" was also found to be significantly related to teaching effectiveness. When the data were analyzed by sex, however, the "Skill" dimension was not significantly effective.

Procedure 2. In the second study, the procedure was replicated with a new sample of 348 men and 406 women enrolled in 32 sections of a general psychology course taught by 16 teaching fellows.

Results 2. It was found that the correlations between "Skill" ratings and mean student achievement were negative. While "Feedback" and "Rapport" were again positively related to effectiveness, "Group Interaction" was negatively correlated with mean scores on the Introductory Psychology Criteria Test.

Procedure 3. In a third study, student rating factors were investigated for two criterion measures--a multiple choice test and an essay test.

Results 3. "Skill" and "Rapport" correlated well with the essay criterion but not with the knowledge criterion.

Procedure 4. A fourth study analyzed data from a group of teachers in a second year French course. Criterion measures were tests of oral expression, grammar, and reading.

McKeachie, W.J., Lin, Y., and Mann, W.

Results 4. "Skill" and "Structure" ratings were valid for women but not for men while "Rapport" or "Warmth" did not predict effectiveness.

Procedure 5. The fifth study involved correlations between student ratings of teaching effectiveness and measures of attitudinal sophistication as well as achievement in an introductory economics course.

Students in a large introductory economics course (N=286) met once a week in a group lecture and three times a week in sections taught by 18 advanced graduate students. A 14-item economic attitude sophistication questionnaire was administered at the beginning and end of the course. A scale for student ratings of instruction which included the Isaacson factors was given at the end of the course. Cognitive achievement was measured by course examinations stressing thinking rather than knowledge.

Results 5. "Skill" was positively correlated with both attitudinal and cognitive measures, significantly so for female students. Teachers rated high on "Change of Beliefs" tended to be effective in changing attitudes.

Discrepant results were discussed in terms of differing goals of students and teachers. Teaching effectiveness is seen as a function of particular objectives and particular students.

EPL
Bep
Gif
Stu

69. McNary, S.R. The Relationships Between Certain Teacher Characteristics and Achievement and Creativity of Gifted Elementary School Students. Final Report Summary. New York: Syracuse University, 1967. ED 015 787

The relationship between teacher characteristics and the degree of change shown by gifted elementary pupils in convergent and divergent thinking areas was investigated. Characteristics were assessed by measures of intelligence, personality factors, and a personal information questionnaire. Six pre- and posttests of convergent and 4 tests of divergent production measured the growth of the gifted children over 1 academic year. A series of multiple regression equations was calculated to assess the relationship between the changes in the 23 classes in the test scores and the 34 teacher, class, and student variables. For each measure of change, items significant at the 1 percent level were grouped for the development of a final regression analysis leading to an influence profile. It was found that teacher personality traits were the most effective of the change-producing variables and that different types of teachers influenced different areas of growth. The children's reading growth related significantly to a teacher's verbal IQ, and growth in writing related significantly to a teacher's annual income and the number of coursework hours in the education of gifted children. The number of students per class significantly affected growth in math. Study implications are that gifted children should be exposed both to teachers whose personality traits are best suited to teach the divergent area and to those best suited to teach the convergent area, with teacher selection based accordingly. (ERIC abstract)

70. Madsen, C.H., Jr., Becker, W.C., and Thomas, D.R. Rules, praise, and ignoring: Elements of elementary classroom control. Journal of Applied Behavior Analysis, 1968, 1(2), 139-150.

Purpose. An attempt was made to systematically vary the behavior of two elementary school teachers to determine the effects on classroom behavior of Rules, Ignoring Inappropriate Behavior, and showing Approval for Appropriate Behavior.

Procedure. Behaviors of two children in a second grade class and of one child in a kindergarten class were observed and recorded in order to determine a baseline from which to work. Following these baseline recordings, Rules, Ignoring, and Approval conditions were introduced one at a time. At the same time, teacher behaviors were observed and recorded, and teachers were offered suggestions for the facilitation of the experimental conditions in their classrooms. In addition, a seminar was offered in which specific problems could be discussed. Both classes underwent the same experimental manipulations except that one class also experienced a return to the baseline and then a reinstatement of the Rules, Ignoring, and Approval conditions.

Results. It was found that: 1) Rules alone had little effect on improving classroom behavior; 2) Ignoring Inappropriate Behavior and showing Approval for Appropriate Behavior, when used jointly, are effective in achieving better classroom behavior; and 3) showing Approval for Appropriate Behavior is the key to effective classroom management. Ignoring Inappropriate Behavior alone led to inconsistent findings, and was a very hard condition for the teachers to maintain. Hence, its value alone needs further clarification. Such findings lead us to conclude that teachers can be taught to modify pupil behavior. Further, knowledge of the importance of differential social reinforcement is essential before academic knowledge can be effectively imparted.

Comment. This study used an extremely small number of subjects.

EPL
Bei
Bes
Spe
Science

71. Matthews, C. EIE Elementary School Science Project. Evaluation Report. Tallahassee: Florida State University, 1969. ED 035 553

The main purpose of the study was to describe teacher and pupil behavior during science lessons. Subjects of the investigation reported in this document were 144 first, second, and fifth grade pupils and the twelve teachers who taught these pupils. Each classroom was observed during five lessons of Science - A Process Approach. The instrument used to code behavior was the "Science Curriculum Assessment System," which is composed of twenty mutually exclusive categories. Data were also collected by private interview with each of the 144 pupils involved in the study. The Friedman Two-Way Analysis of Variance by Ranks Test was used to analyze data. Findings of the study indicated that (1) the greatest proportion of a pupil's behavior was spent observing the teacher or a pupil who acted for the teacher in lesson-related situations; (2) the central tendency of teachers was to interact with more than six children in a group; (3) there was a strong tendency for extended teacher behavior to fall in a category "observing without response" the behavior of groups of 6 or more pupils; and (4) much of the extended teacher behavior was "giving information" or "giving directions" to groups of 6 or more pupils. (ERIC abstract)

EPL
Beb
Bed

72. Mattson, R.H., and Buckley, N.K. Teacher Effectiveness in Control of Child Behavior. Section Three. Interim Report. Eugene: Oregon University, 1968. ED 027 567

Within the classroom, the teacher is an important social variable who controls other environmental variables. Some research on teacher effectiveness has considered personal or interaction variables. In order to study the variable of teacher test organization, a pilot study was conducted in two elementary schools in Eugene, Oregon. Each teacher was evaluated on ability to handle behavior problems or deviant behaviors within the classroom. The evaluation instruments were a background questionnaire, behavior dimension ratings by principals, and ranking of global effectiveness by a panel. There was high correlation (.87) between effective teachers and smoothness of transition periods. Correlation (.78) was found between teacher involvement with outside activities and teacher effectiveness. A study of teacher lesson plans proved many of those plans too vague to use as a technique for measuring length and variety of tasks. Specific hypotheses for further investigation deal with (1) organization of the teaching day, (2) activity variety, (3) transition periods, and (4) reinforcement. (ERIC abstract)

CUL
Ats
Bei
Stu

73. Mayberry, W.E. The Effects of Perceived Teacher Attitudes on Student Achievement. Paper read at American Educational Research Association Annual Meeting, 1970. ED 050 013

Purpose. To examine the affective dimension of teacher-pupil interaction by creating impressions regarding the teachers interest in students and course content and examining the effect of these impressions on student achievement.

Procedure. Sixteen existing classroom groups in an introductory psychology course for education majors (494 students) comprised the subjects for this experiment. The experimental session consisted of a 15-minute lecture followed by a 30-item achievement test on the lecture material and an attitude questionnaire to check on the experimental manipulations. The four situations within the experimental design were: Negative Interpersonal Attitude; Positive Interpersonal Attitude; Negative Task Attitude; and Positive Task Attitude. These were crossed in a 2x2 design producing four treatment conditions.

Results. The expected difference due to the manipulation of the interpersonal relationship did appear and was significant at $p < .01$, with the positive interpersonal group having a more positive attitude. An even stronger effect was noted for the task manipulation dimension, with the positive interpersonal attitude group seeing the instructor as having a more positive attitude toward the task. There was a clear difference due to task attitude manipulation, indicating a strong task attitude effect, with subjects in the positive task attitude situation perceiving a more positive task attitude on the part of the instructor. A positive interpersonal attitude associated with a negative task attitude resulted in the lowest level of achievement, and a positive interpersonal attitude associated with a positive task attitude resulted in the highest achievement.

CUL
Beb
Bep
Bes
Tem

74. Medley, D.M., and Hill, R.A. Cognitive Factors in Teaching Style. Paper read at American Educational Research Association Meeting, 1970. ED 038 380

Purpose. This study investigated the relationship between teacher knowledge and teaching style.

Procedure. The study involved 53 secondary level teacher interns in an eastern U.S. metropolitan area who taught science, mathematics, English, and social studies. Each of the 53 teachers was observed on four occasions by a pair of trained observers and behavior was recorded for about 30 minutes. One of the pair of observers used the Flanders' Interaction Analysis while the other used the OScAR 4V technique. Both recorded the same verbal behavior. Scores from these two systems constituted the measure of teacher behavior or style.

The Common Examination (CE) of the National Teachers Examination (NTE) (which was taken just before the beginning of their first year of teaching) served as a measure of teachers' knowledge of teaching principles.

The CE contained 345 multiple choice items representing 19 content areas. About half the items measured subject matter content commonly found in secondary school curricula while the other half measured knowledge of the content of professional education courses. Answer sheets of the 53 observed teachers and of 38 non-observed teachers were submitted to an analysis of variance. A statistical exegesis is presented. Prediction of stable patterns of classroom behavior which may be regarded as elements of teacher style, and which are operationally defined, can be made.

Results. A multiple correlation of .66 between Lecturing Behavior (per Flanders) and NTE performance was found. Teachers who do better on the science items lecture more, while teachers who do better on the teaching principles and practices lecture less. Though science teaching may lend itself to a lecture format, only seven of the 53 teachers taught science. It is then likely that teachers of other subjects also tended to act like science teachers no matter what subject they taught. Those with high scores in literature, the history and philosophy of education, and teaching practices favored a dialogue approach.

Medley, D.M., and Hill, R.A.

Various suppositions as to the etiology and dynamics of the differing teaching styles are offered, but reliable statements can only be based on a larger sample. Two inferences based on the data were made: 1) the data suggest strongly that the amount and kind of cognitive equipment a teacher possesses contribute greatly to his teaching style; 2) the methodological strategy employed in the study holds much promise in the relating of teacher knowledge to teacher behavior.

JHL
Bev
Tem

75. Medley, D.M., and Hill, R.A. Dimensions of classroom behavior measured by two systems of interaction analysis. Educational Leadership, 1969, 26(8), 821-824.

Purpose. This study compares the findings obtained by the use of two systems for analyzing classroom interactions. The two methods studied were Flanders' Interaction Analysis Technique and OScAR 4V.

Procedure. The subjects of the study were 70 first-year teachers of junior or senior high school English, mathematics, science, or social studies, enrolled in an internship program for liberal arts college graduates.

During February, each teacher was visited by a team of two observers on two different occasions; and during late May or early June each teacher was visited two more times by the same observer team. For 20 minutes on each visit, one member of the team recorded verbal behavior using Flanders' Interaction Analysis Technique, and the other observer recorded the same behavior using OScAR 4V.

Each of the 280 records obtained was scored according to procedures devised for the particular system used. Forty-four measures were scored on each Flanders' record; 42 on each OScAR. Analysis of variance revealed that a number of scores did not detect stable differences among teachers; these were discarded. The 75 remaining scores were intercorrelated and the first 10 principal components of the matrix of intercorrelations were extracted and rotated to a varimax solution.

These ten scores may be said to describe the most important differences detected in the behaviors of these 70 teachers by these two instruments. Four of the factors had to do with questions asked (or answered) by the teacher in developing the substantive content of the lesson; three described student talk and the teacher's reaction to it; and three contained information about how the teacher managed classroom procedures.

Results. Seven of the ten dimensions were scoreable in Flanders' records while eight were scoreable on OScAR. Flanders' instrument appears more sensitive to student behaviors and less able to discriminate teacher behaviors related to substantive content from behaviors related to procedure or management. OScAR is less useful in examining student behaviors, but provides more information about how a teacher divides his time between management and instruction, and the quality of both.

Medley, D.M., and Hill, R.A.

In addition, Flanders' system appears to be the simpler of the two, involving fewer categories. Keys for OScAR, however, appear to involve larger categories of behavior.

The skilled examiner must be able to choose between the two in relation to the area he is investigating.

JHL
Bei
Pyg
Stu

76. Meichenbaun, D., Bowers, D., and Ross, R. A behavioral analysis of teacher expectancy effect. Journal of Personality and Social Psychology, 1969, 13, 306-316.

Purpose. The aims of this research were: 1) to investigate teacher-pupil interactions mediating teacher expectancy effect; 2) to investigate expectancy effects on academic performance and classroom behavior of adolescent girls; 3) to investigate the influence of the teachers' own prior expectancy on the implementation of the expectancy effect.

Procedure. Subjects were 14 adolescent female offenders institutionalized in a special unit in a training school. Two matched groups of girls were identified on the basis of (a) teachers' prior expectancy of girls' academic potential, (b) level of appropriate classroom behavior, and (c) amount of teacher attention given to the girl in the pretreatment period. Six of the 14 girls were placed in the "late bloomer" or "expectancy" group while the remainder made up the control group.

A significant level of agreement in the teachers' evaluation of the girls' academic potential was indicated. The four teachers involved were given the expectancy instructions by the chief psychologist of the school in a group meeting.

Assessment of expectancy instruction effect occurred on the following dependent measures: girls' academic performance, girls' classroom behavior, and teachers' behavior. Overall academic performance was assessed by pretest-posttest comparison of objective and subjective measures. Classroom behavior was also assessed by pretest-posttest comparison of observation records (observation periods continued until all girls were observed and averaged 50 minutes with 30 observations on each girl).

Mediating factors underlying expectancy effects were investigated by continually observing teacher behavior. Teacher observation included a 6-day operant period and an 8-day expectancy period. Teachers' interactional behavior was rated as positive, negative, or neutral. Teachers were not aware their behavior was being observed.

Inter-rater reliability of the behavioral measures employed was .96. Reliability of total scores over observers for the classroom behavior measure was .85. Initial equivalence of experimental expectancy and matched control groups was indicated.

Meichenbaun, D., Bowers, D., and Ross, R.

Results. The results indicated that subjects in the expectancy group had significantly increased their academic performance as measured by the objectively scored examinations. There was no significant group effect for the subjectively scored examination. Improvement of academic performance in the expectancy group occurred regardless of teachers' prior differential expectations of pupils' potential.

Classroom behavior effect was examined by analysis of variance of change scores. The data indicated that both the expectancy and control groups improved their classroom behavior and the expectancy group improved significantly more than the control group. Expectancy instructions did not differentially effect the intensity of inappropriate classroom behavior, but only its frequency. Girls in the expectancy group improved their classroom behavior significantly regardless of the teachers' prior expectancy.

Analysis of variance revealed that expectancy instructions did not result in any significant changes in the teachers' level of attention or the amount of interaction with the girls. Teachers were differentially affected by expectancy instructions: two teachers significantly increased positive interactions while one teacher significantly decreased negative interactions to late bloomers. (Effects of expectancy instructions were described in detail for each of the four teachers.)

It appears that one way of changing the behavior of teachers and pupils is to modify the teachers' perception or label of the students' academic potential. It was noted that the group administration of expectancy instructions made for maximal effectiveness in producing such behavioral changes. The results indicated that the expectancy effect was not mediated by teachers increasing frequency of attention to the expectancy subjects so much as by the changes in the quality of interaction with expectancy subjects.

In the authors' words, the results of this research were beyond their expectations.

JHL
Bei
Bep

77. Mendoza, S., Good, T., and Brophy, J. *The Communication of Teacher Expectations in a Junior High School*. Paper read at American Educational Research Association Annual Meeting, 1971. ED 050 038

Purpose. The aim of this study was to apply Conceptual Systems Theory, which states that one's conceptual capabilities develop from concrete to abstract levels, to the teaching-learning context. It was hypothesized that High Conceptual Level (HCL) teachers, who are "abstract", flexible in their environmental interaction, and who ultimately base their decision making on internal standards, would be more interdependent and use more interdependent techniques than the Low Conceptual Level (LCL) teachers, who are "concrete", rigid in their environmental interaction, and whose responses tend to depend on external normative standards.

Procedure. The sample comprised 20 volunteer teachers from the sixth, seventh, and eighth grades of a middle school. A median split on teachers' Paragraph Completion Test scores was performed to form two groups of 10 HCL and 10 LCL teachers. Forty pairs of sixth-grade pupils, matched for IQ but with disparate Conceptual Level (CL), were formed. Pairs were divided into student groups of 40 HCL and 40 LCL students and were then randomly assigned to treatments in a 2x2 factorial design with HCL and LCL being the independent variable for both teacher and student groups. Teachers taught a "Pollution" minilesson by their own method to four unfamiliar students. Episodes were recorded and proportion of interdepentness was computed for each teacher. An ANOVA using Dunn's Multiple Comparison Technique was performed on the scores of 18 available teachers. Information handling by teachers was identified by the System for Analyzing the Oral Communication of Teachers.

Results. Results indicated that HCL teachers were significantly ($p < .01$) more interdependent than LCL teachers. The proportion of interdependent teacher behavior was significantly ($p < .01$) greater for HCL students than for LCL students indicating that HCL students influenced teachers to behave more interdependently than LCL students. The proportion of interdependentness was significantly ($p < .05$) greater for the HCL teacher-HCL student treatment than for the LCL teacher-HCL student or the HCL teacher-LCL student treatments. No differences in degree of interdependentness were observed between LCL teacher-LCL student and LCL teacher-HCL student treatments.

Mendoza, S., Good, T., and Brophy, J.

The greatest group differences, as expected, appeared between the HCL teacher-HCL student and LCL teacher-LCL student groups since students in these groups reinforced the natural teaching styles of their teachers.

Discussion centers on the powerful effect of student behavior on teacher behavior which is conceptualized in Lewinian terminology. The necessity for student control in teacher behavior research is stressed. Implications of advantageous teacher-student matching are pointed out.

PSL
Ats
Bei
Dis
Spe
Stu

78. Meyer, W.J., and Lindstrom, D. The Distribution of Teacher Approval and Disapproval of Head Start Children. Final Report. New York: Syracuse University, 1969. ED 042 509

Purpose. To examine the distribution of teacher initiated verbal statements of approval and disapproval among four categories of Head Start children--male Negroes (MN), male whites (MW), female Negroes (FN) and female whites (FW); and to investigate the effects of teacher race and teacher-aide race on the distribution of approval or disapproval among the four Head Start groups of children defined.

Procedure. The subjects were 13 female teachers, 13 teacher-aides and 126 children enrolled in Project Head Start for the 1968-1969 school year. There were six white teachers with Negro aides, four Negro teachers with white aides, and three white teachers with white aides.

Data collected were based on a nationwide study of the Head Start programs. All the children received a battery of intelligence and psychological tests both before and after the school year. (All the data are on record at the Office of Child Development).

The observation of teacher (aide) praise or blame was recorded whenever the teacher (aide) initiated an interaction with a child in which approval (disapproval) was verbally presented. The child and the situation were recorded using tape recordings and 60-minute observations by trained viewers.

Results. Analysis of the data indicates that Head Start teachers do not exhibit sexual or racial bias. They do use disapproval in greater frequency than approval and this was not contingent with specific behavior. A significant negative relationship was indicated between disapproval and the index of motivation.

EPL
Bev
Spe
Science

79. Moon, T.C. A Study of Verbal Behavior Patterns in Primary Grade Classrooms During Science Activities. Paper presented at National Association for Research in Science Teaching Annual Meeting, 1970. ED 043 482

This paper reports a study of selected examples of verbal behavior patterns in primary grade classrooms during science activities. The subjects were 32 elementary teachers within five mid-Michigan public school districts. A control group of 16 teachers taught science in the conventional manner. The experimental group received an in-depth study of the Science Curriculum Improvement Study's (SCIS) teaching methods and materials at a 3-week workshop, and used the teaching methods and materials suggested by SCIS in their classrooms. The study was designed as a quasi-experimental, time-series analysis and involved a series of science teaching observations over a one-year period. Each science lesson was recorded with portable tape recorders, and two of the three instruments used in evaluating the data were concerned with information gathered from analyses of the taped lessons. The data indicated that the SCIS teachers differed significantly from those teachers employing conventional science teaching methods and materials by demonstrating an increase in the amount of direct teacher influence displayed in verbal behavior patterns during science activities. Additionally, the SCIS teachers displayed a preference toward asking high-level questions of children. (ERIC abstract)

EPL
Bec
Bei
Bes
Reading

80. Morrison, V. Teacher-pupil interaction in three types of elementary classroom reading situations. Reading Teacher, 1968, 22, 271-275.

Purpose. Teacher-pupil behaviors are examined in elementary classrooms where a) the same reading text is used by all pupils; b) multi-level texts in reading or ability-subject groups are employed; and c) supplementary and/or individualized reading materials are used.

Teacher and pupil behavior were scrutinized in four areas: 1) Classroom activities (including leadership, participation, assistance, and mobility); 2) Uses of instructional materials; 3) Teaching styles and pupil responses; and 4) Affective climate of classroom.

Procedure. Subjects were equal numbers of male and female, black and white, teacher and pupil groups from 33 representative public schools. The Revised Observer Schedule, and Record Form II were employed. Ninety minutes of video taped, sequential classroom interaction were obtained for each group.

Results. The results significantly indicated that in single-text classrooms teachers participated less and assisted pupils less. There was less mobility in the classroom, less positive verbal and physical behaviors, more self-restriction, and less teaching by demonstration of materials. Pupil behaviors also showed more negative patterns of interaction. Teacher behaviors in the multi-level text and supplementary reading classrooms were more positive with significantly more assistance given to pupils, more individualized activities, more positive verbal statements, and significantly less punitive behaviors. The supplementary reading situation demonstrated the highest amount of teacher and pupil participation and the greatest amount of instructional variety.

JHL
Ats
Bed
Com

81. Mutimer, D.D., and Rosemier, R.A. Behavior problems of children as viewed by teachers and the children themselves. Journal of Consulting Psychology, 1967, 31(6), 583-587.

Purpose. To study the degree of consistency between children and teachers in terms of how they view certain behavior "problems."

Procedure. Four hundred children in grades 7-12 in a northern Illinois town were administered a list of 50 behaviors (Wickman, 1929) and asked to briefly describe each behavior.

Fourteen female and 26 male teachers of grades 7-12 in three northern Illinois towns and their 455 male and 456 female students were asked to rate each behavior on a four-point scale.

Comparisons of findings were made by grade, sex, student and teacher.

Results. The 500 chi-square tests of independence indicate that considerable disagreement concerning the seriousness of certain behaviors exists between teachers and students as well as among the students themselves. The teachers rated behaviors of disobedience, obscene notes/talk, nervousness, and unhappiness as being more serious than did students.

The study indicates the difficulties in dealing with this age group in terms of selecting "appropriate" behaviors and their development within the school setting.

Ats
Dis

82. Naremore, R.C. Teachers' Judgments of Children's Speech: A Factor Analytic Study of Attitudes. (Ph.D. dissertation University of Wisconsin) 1969. ED 049 211

This study investigated the judgmental reactions of 33 white and Negro inner city teachers to speech samples of 40 boys and girls who differed in social status and ethnic background. Teachers were asked to make candid responses on a set of semantic differential scales designed to determine (1) the extent to which teachers can be grouped together in terms of their common attitudes toward children's speech and (2) the extent to which groups of teachers can be contrasted and compared with each other in terms of teacher characteristics, child characteristics, rating scale characteristics, and selected characteristics of children's speech. The teachers were grouped--using factor analytic techniques--according to four types of attitudinal responses to children's speech. These four types were divided, both within and between types, roughly along lines of the teacher's race. The teacher types differed in the kinds of judgments made and in the accuracy of those judgments when responding to the speech samples of different types of children. (ERIC abstract)

EPL
Bed
Bev

83. O'Leary, K.D., and Becker, W.C. The effects of the intensity of a teacher's reprimands on children's behavior. Journal of School Psychology, 1968-69, 7(1), 8-11.

Purpose. This study investigated the effects of commands and reprimands audible to the whole class vs. quiet reprimands. The five conditions of this study were: (I) base period; (II) praise appropriate behavior, ignore disruptive behavior; (III) reprimand disruptive behavior quietly; (IV) reprimand disruptive behavior in a manner audible to the whole class; (V) praise appropriate behavior, ignore disruptive behavior.

Procedure. The subjects were 19 children in a first grade class of which 17 were tested and found to have a mean IQ score of 103. Two college students observed a sample of children in varying order for 50 seconds each per day during the children's rest period. The disruptive behaviors were rated for their occurrence or non-occurrence, during five consecutive ten-second intervals, using the schedule developed by Becker, Madsen, Arnold, and Thomas. The rest period lasted 10 to 15 minutes so that about half of the children were observed each day.

The base period lasted ten days and reflected the frequency of disruptive pupil behavior during rest period under usual classroom procedures. Observations during this time indicated that the teacher responded to the children approximately 12 times during rest period with either praise or reprimand. During the last three phases of the experiment the teacher was asked to maintain this level of responding.

Results. During the base period there was an average of 54% deviant behavior: repeated reports by observers indicated that there was little use of praise and frequent use of reprimands. During phase II deviant behavior dropped to 32%: there were approximately 12 praise comments per period and only two instances of reprimand. The average percentage of deviant behavior in phase III was 39% and was not significantly different from phase II. Reprimands audible to the whole class during phase IV resulted in a significant increase in deviant behavior (53%) when compared to phase II. A return to praising appropriate and ignoring deviant behavior in phase V was again associated with a reduction in deviant behavior (35%).

These data suggest that praising appropriate behavior and ignoring disruptive behavior results in a decrease in deviant behavior. Furthermore, it also presents evidence for the observation that not all

O'Leary, K.D., and Becker, W.C.

responses to deviant behavior lead to an increase in the rate of such behavior. A calm, quiet reprimand appears to be more effective than a loud reprimand.

EPL
Bed
Bes
Spe

84. O'Leary, K.D., Becker, W.C., Evans, M.B., and Saudargas, R.A. A token reinforcement program in a public school: A replication and systematic analysis. Journal of Applied Behavior Analysis, 1969, 2(1), 3-13.

Purpose. The purposes of this study were to: (a) examine the separate effects of Classroom Rules, Educational Structure, Teacher Praise, and a Token Reinforcement Program on children's disruptive behavior; (b) assess whether a Token Reinforcement Program used only in the afternoon had any effect on the children's behavior in the morning; and (c) examine the extent to which the effects of the Token Reinforcement Program persisted when the Token Program was discontinued.

Procedures. The subjects were seven of twenty-one children in a second grade class. The children came from middle class homes and the class, as a whole, had a mean age of seven years five months, a mean IQ score of 95 on the California Mental Maturity Scale, and a mean grade level of 1.5 on the California Achievement Test. The teacher had a master's degree in counseling, but had only student teaching experience.

Each child was observed by a regular observer and a reliability checker for 20 minutes each Monday, Wednesday, and Friday morning from 9:30 to 11:30 or during the above afternoons between 12:30 and 2:30. Observations were made on a 20-second observe, 10-second record basis. The categories selected for observation were: motor behaviors, aggressive behaviors, disturbing another's property, disruptive noise, turning around, verbalization, and inappropriate tasks.

Teacher behavior was observed for 90 minutes on Tuesday and Thursday afternoons on a 20-second observe, 10-second record basis. The categories of teacher behavior selected for observation were: comments preceding instruction (i.e. academic and social instruction), and comments following responses (i.e. praise, criticism, threats). The teacher's praise, criticism, and threats to individual children were differentiated from that given to the class as a whole.

The eight phases of the study were as follows: (1) Base Period, (2) Classroom Rules, (3) Educational Structure, (4) Praising Appropriate Behavior and Ignoring Disruptive Behavior, (5) Tokens and Back-up Reinforcement, (6) Praising Appropriate Behavior and Ignoring

Disruptive Behavior (Withdrawal), (7) Tokens and Back-up Reinforcement, and (8) Follow-up. Three procedures, Educational Structure and both of the Token Reinforcement Phases, were instituted for a 2-hour period during the afternoon. The remainder of the procedures were in effect for the entire day.

(It should be noted that the Educational Structure Phase consisted of a reorganization of the teaching program into four 30-minute sessions of spelling, reading, arithmetic, and science in which the whole class participated. The purpose of this phase was to assess the importance of structure per se. In addition, during the Token I Phase, the children were told that they would receive points each afternoon which they could exchange for prizes that were kept on display every afternoon. These points would be awarded to those children who obeyed the rules placed on the blackboard).

Results. Token I Phase and Token II Phase were definitely associated with a reduction of disruptive behavior, and the Follow-up procedure was effective with three of the six children who had more than 15% disruptive behavior during the Praise and Ignore Phase. However, a more detailed analysis of the data for individual children indicated that the Token Reinforcement Program was more effective for some children than others. In addition, it was noted that the introduction of Rules, Educational Structure, and Praise and Ignore did not have any consistent effects on behavior.

Some related gains that were noted included the following: (1) an increase of an average 1.5 years on the post-measures of the California Achievement Test (although there was no control group this gain is above average and warrants further investigation of the effects of a token system on academic performance); and (2) an extremely high (98-99%) attendance rate (although seasonal variations in attendance and the small sample must be considered). The cost of the reinforcers was $125.

It was noted, however, that the teacher did not reinforce appropriate behaviors in the morning. Thus, the children learned that appropriate behaviors were reinforced only in the afternoon. Hence, generalization of appropriate behavior could not occur. Consistency of reinforcement is necessary for such generalizations to occur.

85. Oppelt, M.O. Attitude of Community College Instructors Toward Student Groups as a Function of Certain Teacher Characteristics. Seattle: Washington University, 1967. ED 026 072

This study sought to determine whether there are differences of instructor attitude toward occupational and academic students that would detract from or counter the efforts to provide a satisfactory environment for the occupational student. A semantic differential instrument was constructed and administered to 148 faculty members from three "representative" junior colleges in the state of Washington, as a means of evaluating differences in the degree of favorableness of attitude toward the two classes of students. Significant differences were found between the favorableness of attitude toward selected concepts representative of the two groups of students as reflected by the semantic differential instrument. Vocational instructors showed equally favorable attitudes toward both occupational and academic students, and viewed all students more favorably than academic instructors. The academic instructors viewed academic students more favorably than occupational students. The author concludes that the selection and training of teachers should stress the importance of the favorable attitude of teachers toward occupational students to establish an environment where these students can find favor and consequent status. It will be self-fulfilling and make their individual role more attractive. (ERIC abstract)

86. Pedhazur, E.J. Pseudoprogressivism and assessment of teacher behavior. Educational and Psychological Measurement, 1969, 29(2), 377-386.

Purpose. To distinguish between pseudoprogressivism and genuine progressivism and the relationship between these patterns and assessment of teacher behavior.

Procedure. The subjects were 159 teachers and 174 students from the New York Metropolitan area. Dogmatism was measured by the Dogmatism Scale (Rokeach, 1960). Progressivism was measured by Education Scale VII (Kerlinger, 1967; Kerlinger and Pedhazur, 1967). Both teachers and students received the Teachers At Work Scale which was used to assess teacher behavior in terms of teacher-student interactions.

Results. Statistical analysis of the data indicated that pseudoprogressives assess teachers exhibiting seemingly progressive behavior more positively than do genuine progressives.

Comment. This investigation studied what was reported, not what was directly observed.

JHL
Bep
Stu
Science

87. Perkes, V.A. Junior High School Teacher Preparation, Teaching Behaviors, and Student Achievement. California: Stanford University, 1967. ED 025 417

Investigated was the relationship between teacher characteristics and behaviors and student achievement in junior high school science. Background information about teachers was collected from school records regarding science and science methods credits, grade point average, recency of science course work, and years of teaching experience. Teaching behavior was recorded by trained observers using the Science Teacher Observation Instrument (STOI). Findings included (1) no significant relation between differences in student scores on recall of factual knowledge of science, (2) no significant correlation between specific teacher behaviors and their science credits, and (3) higher application scores and lower factual knowledge scores were gained by students taught by younger teachers with higher science grade point averages and science methods credits. These teachers more frequently (1) held student discussions and student-participated activities, (2) asked questions requiring students to speculate and hypothesize, (3) used equipment in their classroom, and (4) focused their lessons upon the principles of science. Teachers whose students scored higher on factual information reversed this pattern of behavior. They were older, held fewer science and methods credits, and had completed their college work earlier. (ERIC abstract)

JHL
Ats

88. Peterson, H.A. Teacher and peer acceptance of four student behavior types. California Journal of Educational Research, 1968, 19(1), 16-27.

Purpose. This experiment describes four types of classroom behavior in terms of the student's overt work and work-avoidance behavior, and seeks to determine the level of acceptance of each of these four behavioral types by teachers and peers.

Procedure. The subjects were male and female high school students who were observed in the classroom and categorized as follows: (1) adaptive academic--high work and low work-avoidance; (2) adaptive social--high work and high work-avoidance; (3) maladaptive active--low work and high work-avoidance through disruptive classroom behavior; and (4) maladaptive passive--low work and low work-avoidance.

Teachers' attitudes toward each category were determined through opinionaires, final grades and sociometric questionnaires. Statistical data were tested by analysis of variance and various orthogonal comparisons.

Results. Findings indicate that teachers have a high preference for students in the adaptive academic behavior category.

Comment. The experimental design raises questions as to the relationship between the findings and the teachers' background (cultural, social, educational training and orientation, etc.); the cultural make-up of the population studied; the course in which the subjects were observed; the school's goal or orientation in education and learning; and other possible variables.

JHL
Bei
Dis
Stu

89. Rathbone, C., and Harootunian, B. Teachers' Information Handling When Grouped with Students by Conceptual Level. Paper read at American Educational Research Association Annual Meeting, 1971. ED 050 025

Purpose. To assess hypothesized differential teacher behavior at the junior high school level. Differential teacher behavior is defined as quantitative and qualitative differences in teacher-student interaction.

Procedure. Four experienced seventh-grade female teachers participated. The four classrooms were located in a southwestern inner-city with a lower-class population composed mainly of Mexican-Americans and Afro-Americans. Teachers ranked their students in order of their achievement. Ranking instructions were kept vague so as to allow for the teachers' subjective criteria to enter into rankings. On the basis of these rankings, students were divided into high, middle, and low groups. The Brophy-Good dyadic observation system was used to collect interaction data. Frequency codes of categories were converted into percentages.

Results. The results generally indicate differential teacher-student interaction with students at various achievement levels. High, middle, and low expectancy groups were the subjects of quantitative, but not qualitative, differences in interaction patterns. High and middle group students clearly received more response opportunities than lows. Chi square analysis pointed to a significant difference in response opportunities between high and low groups. Highs received about half the number of teacher afforded private work contacts given to either middle or low groups though this finding only approaches but does not reach significance. Lows significantly initiated much fewer pupil-initiated work interactions than highs or middles. Highs initiated work interactions twice as often as lows while middles both receive and initiate more interactions than either highs or lows.

Qualitative differences are discussed in terms of four levels of teacher questioning and teacher feedback to student responses. Lows received about half as many process questions (qualitative index) as highs and middles, though short-answer question data suggest that group differences are largely quantitative. No group differences in teacher feedback were noted.

The most notable result of this research is the finding that low

Rathbone, C., and Harootunian, B.

achievement students received much less teacher contact than did high and middle achievers. A non-participatory spiral for low achievers is hypothesized. The hypothesis that as grade level increases qualitative teacher-student interaction patterns diminish while quantitative differences may reliably point to differential teacher behavior is supported.

Bei
Bev
Tem

90. Resta, P.E., and Niedermeyer, F.C. *Behavorial Analysis of First-Year Communication Skills Teacher Administered Instruction*. Paper presented at American Educational Research Association Annual Meeting, 1970. ED 037 412

For evaluation and further development of the First-Year Communication Skills Program, a classroom observational study was conducted to determine the extent to which teachers demonstrated the desired instructional behaviors and to measure pupil response rate. A sample of 10 classes was selected for observation by two observers during a regularly scheduled lesson on blending (word attack) outcomes. Observers were trained in the use of two observation scales developed for the study: one for stimulus-response analysis of instructional transactions between teacher and pupils and one to measure the patterning and dispersion of pupil responses and the extent to which pupils are presented stimuli appropriate to the program outcomes. Results were used to revise training objectives and develop corresponding materials for the 1969-70 installation. The effectiveness of the new training program was then measured, and based on results and instruments, new procedures and revised classroom monitoring instruments will be developed for use by program supervisors in the 1970-71 tryouts. Comparison of trained and untrained teachers shows the program effective for pupil response rate, relevance of instructional stimuli to lesson outcomes, pupil praise, and use of prompts. Behavioral analysis of instruction appears to be useful in identifying training requirements and evaluating program effectiveness. (ERIC abstract)

CUL
Bep
Bev

91. Reynolds, R. Classroom verbal interaction patterns as a function of instructor cognitive complexity. Journal of Teacher Education, 1970, 21, 59-64.

Purpose. The basic hypothesis of this study is that there is a positive relationship between teacher cognitive complexity and classroom verbal interaction patterns. The cognitively complex person is assumed to have a more objective stance in interpersonal perception and interaction. It is further assumed that such a person would teach in an indirect manner and would tend not to structure classroom interaction. Less complex teachers would have less tolerance for interpersonal ambiguity and would be more directive and teacher-centered.

Procedure. Twenty-one freshman English composition instructors at SUNY-Albany were assessed on the cognitive complexity dimension using Bieri's Modified Role Repertory Test, and were observed three times in the classroom. Observations were made near the beginning, middle, and end of the 16-week semester using the Flanders' Interaction Analysis. Teacher talk was divided into direct and indirect categories and student talk was divided into response and initiation categories. Interaction analysis means were then correlated with complexity scores for each teacher.

Results. The results indicated significant correlations between cognitive complexity and both direct (r=.77) and indirect (r=.63) teacher talk, and between cognitive complexity and amount of silence and confusion (r=.45). When correlation ratios were used to compensate for the nonlinearity of student talk scatterplots, student talk was found to be significantly related to instructor cognitive complexity. Results also suggested that the predictive value of cognitive complexity is greater for the cognitively simple than for the cognitively complex.

The human need to predict and explain one's social universe is conceptualized by the cognitive complexity variable. The structuring of a social situation so that only those events which can be predicted may occur is suggested as an explanation of the relationship of cognitive complexity to instructor behavior. Such a stance tended to be adopted by the directive teacher, classified as cognitively simple. Classes taught by cognitively simple teachers have a high percentage of lecture, drill, direct teacher talk, little acceptance and use of student ideas, little student-initiated talk, and little silence or confusion as revealed by bivariate distributions of the two dependent variables.

Reynolds, R.

A threshold effect was speculated upon in predicting the behavior of cognitively complex instructors--implying that some minimal degree of complexity is necessary for some kind of social functioning but beyond which degree of complexity is of little importance.

Comment. What is not mentioned is that after reaching the cognitive complexity threshold, degree of complexity is at present experimentally valueless. Further research on the effects of cognitive simplicity is suggested.

EPL
Ats
Bei

92. Richmond, B.O., and White, W.F. Predicting teachers' perceptions of pupil behavior. Measurement and Evaluation in Guidance, 1971, 4(2), 71-78.

Purpose. To examine factors of peer-, teacher-, and self-regard of pupils in order to understand and to measure the complex interrelationships existing among these three dimensions.

Procedure. Subjects were 204 fifth and sixth grade pupils and their teachers. The teachers provided a rating for each of their pupils on the Bristol Social Adjustment Guides (Stott and Sykes, 1967). Pupils were given the Self-Esteem Inventory (Coopersmith, 1967). The Semantic Differential, with 12 bipolar adjectives, was used to obtain peer concept ratings; ten peer (classmate) ratings were obtained for each child.

Results. The best predictor of a teacher's rating of a particular pupil was the pupil's peer-perceived activity level. The child perceived by peers to be low in activity was viewed by teachers as having more maladjustive types of behavior. The child who perceived himself as low in Social- and Self-Acceptance scored higher on the teacher's evaluation of maladjustive behavior. In contrast, the child who scored low in Rejection by Authority, in Self-Rejection, or on the Lie Scale also rated high on the teacher's evaluation of maladaptive behavior.

Implications of this study are that teachers' ratings of a child are similar, although to a minimal extent, to the child's rating of self and to peer evaluations of the child. Those children who are very self-rejecting and who feel rejected by authority figures do not appear so to teachers. The teacher is much more likely to see a child as a "problem child" if he is having difficulty with his peers, and may be unaware of those personal stresses of a "child with problems" that are not manifested in overt social maladjustment.

Comment. The Lie Scale consisted of 11 questions distributed throughout the Self-Esteem Inventory to pick out children who were giving thoughtless or inaccurate responses, e.g., "I never worry about anything."

Ats
Dis
Spe
Stu

93. Roberson, E.W. Effects of Teacher In-Service on Instruction and Learning. Tucson, Arizona: EPIC Evaluation Center, 1969. ED 037 383

A study was designed to assess the change in teacher attitudes and methods and student attitudes and achievement as a result of a Teacher Self-Appraisal Inservice Program which included workshops on behavioral objectives, principal-directed teaching skills sessions, and training in Flanders' Interaction Analysis and Roberson's Self-Appraisal. Throughout the year six video tapes were collected on each of 20 teachers; they were coded and interpreted and teachers provided with feedback. Statistical tests were conducted at the end of the year to determine if any significant changes took place in the following data: (1) I/D ratios using data from Flanders' system; (2) percent of time spent in categories 1, 2, and 3 of Flanders' system, in encouraging verbal and nonverbal categories of Roberson's system, in closed method of teaching as opposed to open method of teaching in Roberson's system; (3) student and teacher attitude test scores, and (4) pre-post scores on reading tests, on a semantic differential scale, and on Edwards' Personal Preference Scales. Implications of the findings are that (1) such a program increases the reading achievement of disadvantaged children; (2) writing behavioral objectives at all cognitive and affective levels seems to bring about more change in teacher methods than does training in classroom observation systems; and (3) a teacher's attitude toward the organizational climate of a school may be affected by whether or not he understands the feedback he receives concerning teaching. (ERIC abstract)

JHL
Com
Math

94. Roberts, F.M. Attitudes toward mathematics of faculty and students in three high schools. School Science and Mathematics, 1970, 70(9), 785-793.

Purpose. To learn how high school students and their teachers felt about mathematics.

Procedure. A questionnaire was devised consisting of three scales: (1) attitudes toward math as a process, (2) attitudes toward the difficulties of learning math, (3) attitudes toward the place of math in society. There were three possible responses to each statement: agree, disagree, or uncertain. One junior high school and two senior high schools in northern New Jersey provided the population which consisted of eighth, ninth, and twelfth grade students, and the faculties of the schools--a total of 323 students and 112 teachers.

Results. College-bound seniors scored significantly higher on the scale measuring attitude toward math as a process; teachers scored significantly higher than students on attitude toward math as a process; and students scored significantly higher than teachers on attitude toward the place of math in society. The attitudes of the math-science teachers were significantly higher than those of teachers in other content areas, but only in two of the three schools.

Bep
Ber
Social
Studies

95. Robertson, J.R., and Haas, J.D. Teacher personality and the new social studies. Journal of Educational Research, 1970, 64, 133-138.

Purpose. (1) To determine the self-perceptions of social studies teachers, (2) to compare patterns of self-perception to norms of the general population, and (3) to determine if students' perceptions of teachers corroborate teachers' perceptions of themselves.

Procedure. Subjects were 62 male social studies teachers from Utah. The student sample was drawn from the classrooms of the 62 teachers and totalled approximately 3,700. The Edwards Personal Preference Schedule was administered to all teachers participating in the study. The instrument for measuring student perception of teachers was devised specifically for this experiment--the Robertson Student Perception of Teacher Attitude Scale. It consisted of the presentation, in narrative form, of six situations common to public school classrooms, followed by a forced choice set of four possible responses correlating with four environments: rejecting, demanding, casual, and accepting.

Results. Utah teachers rated significantly higher in needs for Exhibition, Intraception, Dominance, and Heterosexuality and significantly lower ($p < .01$) in needs for Order, Abasement, Nurturance, and Endurance than the national norms. When the teachers' scores for Intraception and Affiliation (the two scales most approximating acceptance) were summed, and then the teachers' scores for Aggression (the need most nearly approximating Rejection) were subtracted from that sum, an r of .347 obtained between this combination of EPPS variables and the Robertson Scale.

JHL
Bec
Bei
Spe
Stu
Math

96. Rosenbloom, P.C. et al. Characteristics of Mathematics Teachers that Affect Students' Learning. Final Report. Minneapolis: University of Minnesota School of Mathematics and Science Center, 1966. ED 021 707

The study reported investigated the following questions: (1) Is teacher effectiveness related to the pattern of interaction between teacher and student and to the classroom climate created by this interaction? (2) Is teacher effectiveness related to the productive thinking abilities of teachers as reflected in the submission of their daily logs? Data for the investigation were collected during the consecutive school terms from 1960-1962. The subjects were 127 teachers who had participated in a field study for the evaluation of School Mathematics Study Group (SMSG) materials from grades 7 through 12. Teaching effectiveness contributed significantly to the attitudes and perceptions of pupils concerning teachers and their methods, the school, text materials, and the class as a group. The most effective teachers produced a greater variety of ideas about success and failure in their teaching and offered a greater variety of alternative ways of teaching mathematical concepts. (ERIC abstract)

Bei
Stu
Tem
Review

97. Rosenshine, B. Interpretive Study of Teaching Behavior Related to Student Achievement. Final Report. Philadelphia, Pennsylvania: Temple University College of Education, 1970. ED 051 116

This report reviews the results of some 35 studies completed between 1956 and 1970 which attempted to relate systematically observed teaching behaviors to adjusted measures of student achievement. Information in each study includes investigator, date, population, time, tests used, and significant and non-significant results. The studies are divided into four categories according to the type of behavior investigated: 1) affective variables, 2) teacher cognitive behaviors, 3) flexibility and variety, and 4) amount of teacher-student interaction. In the first category, consistent positive trends were noted for use of student ideas, indirectness, and indirect/direct ratios, and a consistent negative trend for criticism. There are too few studies in the second category for any generalizations, but in the third category, variation in activities was positively related to student achievement. In the fourth category, there were consistently positive but non-significant correlations between teacher talk and student achievement. Suggestions for further research include the use of a greater variety of variables, the use of high and low inference variables in the same investigation, subdivision of variables, greater control over the relationship between instructional content and criterion measures, and greater precision in recording, reporting, and analyzing results. (ERIC abstract)

Ats
Dis
Spe

98. Rosenthal, T.L. et al. Pedagogical attitudes of conventional and specially-trained teachers. Psychology in the Schools, 1970, 7, 61-66.

Experiment I.

Purpose. To determine whether teachers participating in an experimental program aimed primarily at economically deprived Mexican-American children acquired the pedagogical attitudes of that program.

Procedure. A 75-item Survey of Educational Attitudes (SEA) was devised to reflect the philosophical interest of the program, using a 10-point Likert type rating scale. Anonymous self-report data were solicited from every teacher in the district, whether in the experimental program (EP) or nonprogram (NP). Eight hundred and seventy-nine teachers returned the survey.

Results. Over the entire item-composite, the EP teachers aggregate scores were significantly ($p < .0001$) more concordant with EP philosophy than the scores of NP teachers.

Experiment II.

Purpose. To study intensive short-term EP effects on attitude.

Procedure. Twenty-four teachers were given six weeks intensive training in the philosophy and techniques of the EP during the summer. The Survey of Educational Attitudes was administered before and after this course. A control group of 34 teachers taking courses at the University of Arizona was also given the SEA at the time of its readministration.

Results. No significant difference was found between the scores for the original administration of the SEA to the experimental group and the control group scores. After the program, on readministration, the aggregate attitudes of the experimental group differed significantly ($p < .0001$) from the control group attitudes and from their prior attitudes ($p < .0002$).

99. Rothbart, M., Daifen, S., and Barrett, R. Effects of teacher's expectancy on student-teacher interaction. *Journal of Educational Psychology*, 1971, 62, 49-54.

Purpose. This study attempted to clarify processes mediating teacher expectation and changed pupil behavior. Teacher behavior in a simulated classroom setting was evaluated focusing on a) the teacher's allocation of time between "bright" and "dull" students, b) the amount of reinforcement (encouragement) directed towards the two groups, and c) the resulting verbal production of "bright" and "dull" pupils.

Procedure. Thirteen senior teacher trainees at McGill University were recruited for a "student interaction" study with 27 male and 25 female eighth and ninth grade student volunteers. Each discussion group consisted of one teacher trainee and four students. The four student subjects were randomly assigned to a high-expectancy or low-expectancy condition. Sessions were video taped by concealed apparatus and were also observed "live" by experimenters behind a one-way mirror who recorded differential teacher attention time and student talk time. The teacher was told the objective was studying student behavior while students were told the objective was studying approaches to English literature.

Following the session, teachers rated each student on a bipolar continuous rating scale as to intelligence, cooperation, appeal, curiosity, interest, need for approval, contribution to the discussion, and potential for future success.

Results. The data indicated that the teachers spent more time attending to the high expectation than low expectation students. A three-way analysis of variance was performed on student's verbal production and indicated a marginally significant difference towards a tendency for the high-expectation students to talk more than low-expectation students. Teachers saw the high-expectation students as somewhat more intelligent ($p < .08$, two-tailed test) and as having greater potential for future success ($p < .02$, two-tailed test); the low-expectation students were viewed as having higher need for approval ($p < .01$, two-tailed test).

These data suggest that teachers attend more to the "better" pupils and that these pupils respond in turn by talking more.

Ats
Bei

100. Rotter, G.S. *The Effect of Sex Identification upon Teacher Evaluation of Pupils*. Paper read at Eastern Psychological Association Meeting, 1967. ED 013 793

To determine whether sex identification influences teachers' evaluations of students when behavior is held constant, 128 white female teachers rated students from stories relating in objective terms the behavior of a hypothetical nine year-old child. The stories were controlled so that the behaviors presented for both sexes were closely paralleled. Both orderly and disruptive students were presented. Following their reading, the teachers evaluated the students on 80 bipolar scales, which then underwent factor analysis. Among the findings were (1) boys were rated more active, more gregarious, more accepted by their peers, dirtier, and better leaders than girls, (2) boys were rated higher than girls for orderly, but lower for disruptive behaviors, (3) orderly boys and girls were judged equally quiet, but disruptive boys far more noisy than disruptive girls, (4) disruptive boys and girls were seen to achieve equally little in school but orderly boys as achieving much more than orderly girls, (5) disruptive boys and girls were perceived as having about the same need to be like others, but orderly boys as having strong desires to be different and orderly girls as having a strong desire to be like others. It is concluded that sexual preconceptions influence a teacher's perceptions and evaluation and can result in differential treatment. (ERIC abstract)

Bei
Bes
Tem
Reading

101. Rutherford, W.L. Analyzing Classroom Instruction in Reading. Paper read at International Reading Association Conference, 1970. ED 042 584

A method for analyzing instructional techniques employed during reading group instruction is reported, and the characteristics of the effective reading teacher are discussed. Teaching effectiveness is divided into two categories: (1) how the teacher acts and interacts with children on a personal level and (2) how the teacher performs his instructional duties. Teacher behaviors in the affective and cognitive domains are considered. To combat the inefficient and ineffective uses of instructional time, a Guide for Observing Reading Instruction was developed. Designed to be used by two observers, data are to be collected in the following areas: (1) time spent in teacher talk, (2) time spent in student talk, (3) number of interchanges between teacher and student, (4) time each student talks or reads aloud, (5) types of teaching activities, and (6) approximate time spent on each activity. Uses of the guide, notational procedures, and examples are presented. (ERIC abstract)

PSL
Bec
Dis
Spe

102. Scott, M. Some parameters of teacher effectiveness as assessed by an ecological approach. DARCEE Papers and Reports (George Peabody College for Teachers), 3(3), 1969. ED 032 928

To identify parameters of teacher effectiveness, this study uses an ecological approach. Since setting, which includes not only physical surroundings but also the dynamic of activity, has a coercive effect on behavior, a teacher's ability to establish appropriate settings should be an accurate measure of effectiveness. Five head teachers in a project for disadvantaged five-year olds who were rated by supervisors at either extreme of effectiveness were selected for observation of their behavior. Complex, in-depth observations, based on behavioral episodes, were made of each teacher in the settings of "Morning Greeting" and "Large Group Activity." These observations were analyzed on a structural and quantitative basis involving 16 factors governing a behavioral episode. While the nature of the resulting data made statistical analysis inappropriate, several major trends were recorded. Those teachers rated effective maintained a smoother continuity to their activities, ended more episodes with the attainment of goals, and showed more positive and less negative emotions than their poorly rated counterparts. The effective teachers were more directly involved, more spontaneous, and more in control of situations. (ERIC abstract)

EPL
JHL
Bes
Dis
Spe

103. Senf, R. Followup Study of 1966 Summer Institutes for Teachers of Disadvantaged Children. Evaluation of New York City Title I Educational Projects, 1966-67. New York City: Center for Urban Education Committee on Field Research and Evaluation, 1967. ED 025 476

A followup study (to ED 011 018) was conducted to obtain data concerning the impact of the 1966 Summer Institutes program on the subsequent classroom activities of the participants. The Institutes had been designed to improve the quality of instruction in public and nonpublic schools in disadvantaged areas of New York City by providing for the training of teachers, supervisors, and administrators currently teaching or preparing to teach disadvantaged students in grades one to eight. In the followup study, questionnaire data was secured from pairs of teachers (one of whom attended the summer institute and one of whom did not) within the same school and when possible teaching the same grade level. Of the 52 pairs observed, approximately half were from public and half from nonpublic schools; of the institute participants approximately half had taken one or two courses, the other half three or four. Each pair was observed during one hour of teaching by one of nine observers using a rating scale. Data were analyzed by means of analysis of variance, chi square tests, and Pearson product-moment correlations. Findings are presented and discussed and conclusions drawn, most of them supporting the original study, with some reservations noted. (ERIC abstract)

EPL
Ats
Bei
Ber

104. Silberman, M.L. Behavioral expression of teachers' attitudes toward elementary school students. Journal of Educational Psychology, 1969, 60, 402-407.

Purpose. To examine whether teachers' attitudes toward students are revealed in teachers' classroom behavior.

Procedure. Ten third grade teachers were interviewed to elicit their attitudes toward specific students in their classes. Their behavior toward the students discussed in the interview was observed. The students were then interviewed concerning their perceptions of their teachers' behavior.

Results. Teacher attitudes significantly affected the distribution of each observed teacher behavior: contact, positive evaluation, negative evaluation and acquiescence. Significant correlations also existed between observed behavior and student self-predictions and between observed behavior and predictions of other students.

EPL
JHL
Bes
Spe

105. Stern, M., and Lipe, D. *Teacher Behavior in PLAN and Control Classrooms Using the PLAN Teacher Observation Scale*. Paper read at American Psychological Association Annual Meeting, 1970. ED 045 586

Purpose. The effectiveness of the PLAN teacher training program in changing teacher classroom behavior was evaluated in this study. Hypotheses regarding teacher behavior were: (A) PLAN teachers at the primary, intermediate, and secondary levels will spend more time than control teachers in diagnostic and didactic inquiry (Category 1), decision facilitating (Category 2), teaching small group discussion (Category 7), tutoring in a small group (Category 8), and giving positive verbal or non-verbal messages; and (B) control teachers at the primary, intermediate, and secondary levels will spend more time than PLAN teachers proving content in small (Category 9) or large group discussion (Category 13), giving negative verbal or non-verbal messages (Category 16), managing records (Category 17), managing learning materials and equipment (Category 18), and interacting with a large group of students (Categories 11, 12, 13, 14).

Procedure. All PLAN teachers completed a training module on Individualizing the Student's Educational Program (emphasizing student participation in own educational program and goal setting); participated in a minicourse or module on the tutoring process (emphasizing diagnosis, prescription, and reinforcement); and were given instruction in the use of the PLAN system in accounting for necessary management of classroom activities. Both the tutoring module and the curriculum module stress that the student rather than the teacher find solutions. The design of the PLAN system obviates the necessity for large group instruction.

The data were collected by trained observers using the categories of the PLAN Teacher Observation Scale (TOS). Thirty-six PLAN teachers and 14 control teachers were observed for three separate 20-minute sessions.

Results. The data regarding the first hypothesis revealed results that were significant at the intermediate level for Categories 1 and 2. Categories 7 and 8 revealed significant differences for some PLAN subgroups but not for others. Thus the first hypothesis was only partially supported in Categories 1, 2, 7, and 8.

Stern, M., and Lipe, D.

Regarding the second hypothesis, Category 9 had higher control percentages for some intermediate and primary level groups. The control group percentage was in all cases greater than that of the PLAN group for Categories 12, 13, and 11+12+13+14.

Variation of findings is discussed in terms of the differential effects of spring and fall training periods. The effect of PLAN training is seen in those Categories most consistently in support of the hypotheses--1 (diagnostic and didactic inquiry), 2 (decision facilitating), and 8 (tutoring in small groups). At all levels and for all subgroups, the percent of teacher behavior in PLAN classrooms in these Categories was greater than in control Categories. Implications of the results were not suggested.

EPL
Bev
Exc

106. Stuck, G., and Wyne, M. Study of verbal behavior in special and regular elementary school classrooms. American Journal of Mental Deficiency, 1971, 75, 463-469.

Purpose. To determine whether teacher behavior in special education classrooms differed from teacher behavior in regular elementary classrooms. Specifically, the study was designed to examine the relationship between chronological age and mental age ranges and teacher-pupil verbal behavior in the classroom.

Procedure. One class of intermediate-level mentally retarded children with mental ages of 5 to 8 years and chronological ages of 9 to 12 years, one class of intermediate-level intellectually-average children with MAs of 8 to 13 years and CAs of 9 to 12 years, and one class of primary-level intellectually-average children with MAs of 5 to 9 years and CAs of 6 to 8 years were selected from each of nine schools. The subjects of this study were the 27 teachers of these classes and their pupils. Five of the schools were predominantly white while four were predominantly black. Except for one class, teachers were of the same color as their pupils. All teachers were female.

An observer recorded the verbal behavior of teacher and pupils every 3 seconds and classified this behavior according to the Flanders' Interaction Analysis Category System. The one-hour observation was repeated a week later by a second observer.

Results. A multivariate analysis of variance test was made to evaluate the ten category variables by classroom type. The results indicated no significant differences among the three types of classrooms. It was also found that no significant differences existed among the three types of classrooms when the percent of teacher talk and the seven indirect-direct influence ratios were simultaneously analyzed. The only significant difference found was that primary and intermediate regular-class teachers used a significantly greater proportion of indirect behavior to stimulate students to speak than did special-class teachers.

The results of this study challenge the assumption that the educable retarded require special classroom teaching. The facilities, materials, and the students themselves were the only special elements noted in these classes. Teachers of these classes tend to direct pupils to respond more than regular class teachers.

Stuck, G., and Wyne, M.

The results also suggest that CAs and MAs are not significant variables affecting teacher verbal behavior.

Comment. The validity of the results are perhaps limited due to observer effect - in the presence of the observer, the teacher may have been putting her best foot forward. Additionally, the Flanders' Interaction Analysis Category System does not account for non-verbal behaviors and the subtleties of verbal content.

EPL
Bei
Spe
Stu

107. Teacher Influence Patterns and Pupil Achievement in the Second, Fourth and Sixth Grade Levels. Vols. 1 and 2. Final Report. Ann Arbor: Michigan University School of Education, 1969. ED 051 123

The first volume details the procedures used in second, fourth, and sixth grades and inservice training projects and their results; the second presents data on achievement, attitude, and interaction analysis. The purpose of the project was to test some theoretical principles of teacher influence with particular emphasis on different patterns which occur in different teaching situations. The four main objectives were 1) to collect normative data; 2) to analyze verbal interaction patterns, at three grade levels, in classrooms that score above and below average in pupil achievement and positive pupil attitudes; 3) to develop procedures and equipment to tabulate coded interaction data directly into a matrix; and 4) to work with a small group of teachers to help them modify their teaching behavior and to identify models of classroom interaction. The results are discussed in detail under four headings: 1) teaching effectiveness as a field of knowledge; 2) helping a teacher change his teaching behavior; 3) outlining the contributions which the project makes for those who conduct research; and 4) describing some of the contributions of this project for the classroom teacher. Appendixes to volume 1 include the achievement and attitude tests used for each grade, the inservice training instruments, and the analysis of covariance for the sixth grade. (ERIC abstract)

EPL
JHL
Dis

108. Thurston, J.R. et al. Classroom Behavior-Background Factors and Psycho-Social Correlates. Eau Claire County Youth Study, 1961-1964. Eau Claire: Wisconsin State University, 1964. ED 014 335

Classroom aggression, defined in this study as markedly unacceptable aggressive behavior occurring habitually or frequently in school, is examined in relation to sex, grade, and urban-rural status. The writers state that neurotic, psychopathic, and social behavior patterns have the following four focal causative areas--(1) school. (2) home and parents, (3) cultural milieu of the neighborhood and its community, and (4) goals and standards which prevail at city, state and national levels. The research correlates approved and disapproved classroom behavior of 384 rural and urban boys and girls from the third, sixth, and ninth grades. These children were identified as showing consistently approved or disapproved behavior. The study extended from May 1961 to May 1963. Half the sample was drawn and studied the first year, and half was drawn and studied the second year. Findings indicate that both the urban and rural disapproved child had many familial disadvantages and manifested the following characteristics--(1) argumentive, (2) low or average intelligence, (3) low opinion of adults, (4) rejective of parents, and (5) non-classroom orientation. Wide use is made of charts to present all data. (ERIC abstract)

EPL
Ats
Beb

109. Tolar, A., and Lane, P.A. Educational backgrounds of teachers who differ in attitudes toward child behavior. Psychological Reports, 1967, 21(1), 179-180.

Purpose. To determine if there is a relationship between teachers' years of experience and their attitudes toward children's behaviors.

Procedure. The subjects were 118 elementary school teachers whose median years of teaching ranged from 3 to 24.5 years.

Teachers and psychologists were asked to rate each of the 295 behavioral descriptions on the Staten Island Behavior Scale (Mandell and Silberstein, 1965) as being either normal or abnormal.

Results. More experienced teachers' attitudes toward the normality of child behavior resembled those of the clinical psychologists, but the less experienced teachers differed markedly in that they ascribed pathology to a greater number of behaviors.

This study indicated that teacher attitudes may be a function of the extent of exposure to children.

EPL
Bes
Reading

110. Tom, C.L. What Teachers Read to Pupils in the Middle Grades. (Ph.D. dissertation, Ohio State University) 1969. ED 041 887

To ascertain, classify, and evaluate the quality of prose and poetry read to pupils in grades 4-6 by their teachers and to determine some of the situational factors that affected the reading, a 30-item questionnaire containing objective multiple choice items (concerning teacher background, library facilities, and read-aloud practices) and open-ended items (requesting the titles of prose and poems that teachers had read to their pupils from September 1967 to January 1969) was sent to 1,020 teachers in five states. Information was obtained from 582 teachers; objective items were analyzed with Ohio State Questionnaire Analysis Computer Program while the quality of each title was measured on a four-point scale determined by its rating in two current standard bibliographies. Findings indicated that (1) a large proportion of teachers value reading aloud to their pupils; (2) the prose and poetry choices of men and women teachers vary little; (3) more fiction than nonfiction is read aloud and the fiction read is of higher quality; (4) reading choices depend on what is easily available in textbooks and the school library; and (5) teachers need to know more about children's books and poetry, especially contemporary materials. (ERIC abstract)

Ats
Spe
Creativity

111. Treffinger, D.J. et al. Teachers Attitudes About Creativity.
ED 013 803

To determine the effects of an inservice program on teachers' attitudes about creativity, about 260 teachers and administrators, from all grade levels, in a city of about 20,000 in northern New York attended a 4-day institute in creative problem-solving. The program consisted of one-hour formal presentations on current theory and research in creativity and problem-solving, and discussions of the presentations. A 14-item attitude survey, utilizing both a 5-point Likert-type scale (strongly agree or disagree) and a rating on a 5-point scale of the truth of a statement was administered before and after the program. It was found that after the program (A) more teachers agreed with the statements, (1) "The creative child is not likely to be well-liked by his classmates," (2) "It is possible to improve students' ability to think creatively and to solve problems," (3) "I could identify the children in my classroom who are the most creative," and (4) "There is a very thin line between the very creative act and the pathological," and (B) more teachers disagreed with the statements, (1) "Our efforts to improve creativity are in vain because it is probably a national strength," and (2) "Most paper and pencil tests do not really measure students' creative abilities." It is concluded that such inservice programs are valuable in developing increased understanding of creativity. (ERIC abstract)

JHL
Bep
Ber

112. Tuckman, B. Study of the interactive effects of teaching style and student personality. Proceedings of the 77th Annual Convention of the American Psychological Association, 1969, 4, 637-638.

Purpose. In this study, it was hypothesized that nondirective teachers would be preferred by students classified as abstract-independent or nonauthoritarian while directive teachers would be preferred by students classified as concrete-dependent or authoritarian.

Procedure. The sample included 344 male students in the eleventh or twelfth grades of a vocational-technical high school. Students classified their teachers on the directive-nondirective dimension by the Student Perception of Teacher Style Scale (SPOTS). Of 40 teachers, six of 20 vocational teachers and six of 20 nonvocational teachers scoring at least one SD below their respective group mean were classified as directive, and six of each scoring one SD above were classified as nondirective. Students in their classes completed the Interpersonal Topical Inventory (ITI), a forced-choice measure of abstract-independent and concrete-dependent personality, and the California Short Form of the F scale. At the end of the school year, the same students completed measures of course satisfaction and teacher preference. Two-way analyses of variance were performed for each of the three dependent measures: course satisfaction, teacher preference, and course grades. Separate analyses were performed for the ITI and F scale.

Results. Results demonstrated that students were more satisfied with and preferred nondirective teaching. In general, nonauthoritarian students were more satisfied. Nonauthoritarian and abstract-independent students were more satisfied with nondirective than directive teaching, while authoritarian and concrete-dependent students did not differentiate. Students received higher grades with nondirective teachers, perhaps justifying the inference that they learned more. Concerning effectiveness, the study suggests that it would seem that being liked is necessary but not necessarily sufficient for effectiveness. It is also suggested that teachers develop the capacity to teach nondirectively, especially when there is a preponderance of students who are abstract.

EPL
Bei
Bep
Stu
Creativity

113. Turner, R.L., and Denny, D.A. Teacher characteristics, teacher behavior, and changes in pupil creativity. Elementary School Journal, 1969, 69, 265-270.

Purpose. To correlate personal-social characteristics of teachers with changes in pupil characteristics.

Procedure. Five teacher characteristics--Warmth-Spontaneity, Involvement, Educational Viewpoint, Organization, and Stability--were used. To obtain this data, 20 teachers filled out Form E66 of the Characteristics Schedule from the Behavioral Dimensions of Teachers. Seven teacher behaviors--Teacher-Pupil Relationship, Motivational Climate, Encouragement of Unusual Pupil Responses, Teacher Initiative in Control of Instruction vs. Pupil Initiative, Variation in Materials and Activities, Adaptation to Individual Pupils, and Teacher Approach--were rated by the Denny-Rusch-Ives Classroom Creativity Observation Schedule. Each teacher was observed on three occasions by a team of three observers.

To obtain the measure of change in pupil characteristics, adapted forms of creativity tests developed by Guilford, Merrifield, & Cox (1961) were administered to 788 pupils in October, 1965 and again in April, 1966.

Results. It was found that there was a tendency for each of the teacher characteristics, except Stability, to be related to a particular measure of pupil creativity and to a restricted measure of teacher classroom behaviors.

Warmth-Spontaneity and Involvement were found to be positively associated with pupil increases in Redefinition, with the former holding a much stronger relationship than the latter. Educational Viewpoint at the child-centered pole is associated with increases in pupils' Spontaneous Flexibility.

A fourth teacher characteristic, Organization, was negatively associated with pupils' Ideational Fluency. Here it seems that the Organization scale contains many items that would separate teachers who would and would not have difficulty in controlling pupils. Thus, the higher scores on this scale tend to represent teachers who very likely have gained control of pupils at some expense to pupil creativity.

Hence, there appear to be certain teacher characteristics and behaviors which might be fostered by schools that want to encourage pupils' creativity.

Comment. This article lends support to the validity of the Characteristics Schedule and to parts of the Denny-Rusch-Ives Classroom Creativity Observation Schedule, although the limits in sample size and in representativeness cannot be ignored.

JHL
Bes
Bev

114. Urbach, F. A Study of Recurring Patterns of Teaching. 1966.
ED 028 153

Three secondary school teachers (A, B and C) participated in a study to determine if teachers use a repeating pattern of verbal instructional techniques and if there are common instructional patterns among teachers. Sixteen observation records of interaction sequences for each teacher showed that teacher A exhibited the most complex system of verbal instructional techniques characterized by a very rapid rate of teacher pupil interaction; teacher B (displaying patterns intermediate between teachers A and C) was characterized by a lecture-question-answer sequence with a great number of student-initiated responses; and teacher C had a consistent, recurring pattern of extended lecture with short student responses to questions. An Interaction Sequence Graph (based on Flanders' 10 categories of interaction) was constructed from observation records. Comparisons of the teachers' patterns in the graphs (made in terms of those sequences which appeared in every observation record, those which appeared in half, and those which appeared in less than half) showed that each teacher did exhibit a repeating pattern of verbal instructional techniques, but because each teacher exhibited such diversity, it was not possible to demonstrate a common pattern among all three teachers. (ERIC abstract)

JHL
Bec
Bep

115. Walberg, H.J. Teacher Personality and Classroom Climate.
1967. ED 014 471

Purpose. To discover if personality characteristics, needs, values, and attitudes of teachers predict classroom climate.

Procedure. The subjects were 36 male teachers of physics who had enrolled in a briefing session for a new high school physics course. Each received the Allport-Vernon-Lindzey Study of Values (AVL), the Edwards Personal Preference Schedule (EPPS), and the Minnesota Teacher Attitude Inventory (MTAI). A sample of the students (approximately 20%) in the subjects' physics classes were administered the Classroom Climate Questionnaire (CCQ), which had been developed for this study. It tries to relate 29 measures of teacher personality to 18 dimensions of classroom climate. The CCQ was simultaneously administered along with the AVL, the Henmon-Nelson Intelligence Scale, and the Personal Opinion Survey.

Results. Analysis of the data indicate that those with needs to interact with others, both aggressively and affiliatively, tend to have controlled, goal-directed classes. Teachers with dependence, power, order, and change needs tend to have more formal, subservient climates with little animosity among students. Those subjects with the personality pattern of a self-centered individual tend to have lower group status, loose supervision of student's work, and are disorganized and constrained.

EPL
Bes
Spe
Stu
Math

116. Ward, B. Independent Mathematics Learning as a Function of Teacher Behaviors. Berkeley, California: Far West Laboratory for Educational Research and Development, 1971. ED 048 002

Purpose. Two null hypotheses were tested regarding variables introduced in individualized instruction: 1) that no pupil performance differences would occur in group and individual learning treatments; 2) that teacher use of seven behaviors comprising three categories--causing learner awareness of learning goals, evoking learning performance (including completion of the learning task and provision of motivation for learning), and assessing learning outcomes--will bear no relation to the prediction of variance in pupil post-unit scores. Independent learning is defined as learning occurring without direct teacher supervision, planned in individual teacher-pupil meetings, and self-paced by the pupil. In the group learning situation, the teacher directly supervises the pupil's work. Tasks, discussions, and activities assigned by the teacher to the group as a whole are included.

Procedure. Thirty-four teachers, 18 who had received a special minicourse in the use of the seven teacher behaviors and 16 who had received no training, volunteered for the study. Of the 34 teachers, ten trained and nine untrained teachers were assigned to teach an instructional unit on mathematics measurement using independent learning procedures. The remaining eight trained and seven untrained teachers taught the same unit using group learning procedures. The population was 314 pupils.

Teacher behavior was sampled by use of 30-minute video tape recordings. Scoring of teacher use of specified behaviors was made by two independent observers who rated a behavior on a three-point qualitative rating scale. Pupil performance was measured by pre- and posttests tapping mastery of unit objectives. Pupils' general learning ability and level of mathematics achievement were also assessed. These two measures and the pretest served as independent variables while posttest scores comprised the dependent variable.

Results. A posteriori Scheffe contrasts indicated: (1) that the trained independent teachers significantly differed from the untrained independent and untrained group teachers; and (2) the trained group teachers differed significantly from the untrained group teachers but not from the trained or untrained independent teachers. A conservative treatment of the data revealed that only the approach to learning variable was significant and occurred in favor of the group approach.

An implication of this study is that when the learning environment is content and material controlled, a group learning situation is superior to an independent learning situation. The estimate of variance obtained and the appearance of different behaviors for the independent as compared with the group treatment suggest that assessment of specific teacher behaviors may help define "effective teaching" for differing instructional situations.

EPL
Bes
Stu
Creativity

117. Weber, W.A. Relationships Between Teacher Behavior and Pupil Creativity in the Elementary School. Paper read at American Educational Research Association Annual Meeting, 1968. ED 028 150

A four-year study was conducted to test the hypothesis that indirect teacher behaviors foster pupil creativity more than do direct teacher behaviors. Multivariate composite scores derived from interaction analysis data were used to classify 180 elementary school students (who had the same teacher for grades 1 through 3, and a different teacher in grade 4) as having experienced one of four teaching behavior combinations; indirect or direct all four years; indirect for three years and direct in the fourth year; and direct with indirect in the fourth year. Student responses to a creative thinking test composed within the framework of two forms of creative expression, verbal and figurative, were compared with their teacher behavior experience. Results suggest that verbal creativity is fostered more under the influence of indirect teacher behaviors, and that figural creative potentialities are encouraged more under the influence of consistent patterns of teaching behaviors. It would seem, then, that consistently indirect teachihg behavior would encourage the growth of both verbal and figural creative expression. (ERIC abstract)

Ats
Bei
Exc

118. Westbrook, A. Teachers' recognition of problem behavior and referrals of children to pupil personnel services. Journal of Educational Research, 1970, 63(9), 391-394.

Purpose. To see whether teachers' recognition of problem behavior was reflected in actual referrals to Pupil Personnel Services.

Procedure. A four-point rating scale was used for 43 behavior problems incorporated into a questionnaire. Also included in the questionnaire was a question as to what referrals would have been made if services were ideally able to handle all referrals. Subjects were 104 teachers.

Results. There were 41 referrals for withdrawn behavior, 63 referrals for aggressive behavior, and 232 referrals for learning problems.

Ats
Dis
Sp

119. White, W.F. *Affective Dimensions of Teachers of Disadvantaged Children in Six Majority Negro School Districts*. 1969.
ED 028 833

During a summer institute at the University of Georgia, 10 concepts of 144 teachers (120 females and 24 males) were assessed. This study examined the structure of the affect that teachers in six majority Negro school districts had on the teacher learning process. Twelve adjective pairs were used to measure each of the following ten concepts: (1) this summer's institute, (2) the economically deprived child, (3) myself, (4) a Negro teacher, (5) a white teacher, (6) Negro principals, (7) white principals, (8) other teachers, (9) a Negro child, and (10) a white child. Teachers' perceptions of four concepts shifted significantly over the tenure of the institute: (1) perceived initially as negative and worthless, the Negro teacher appeared to become more valuable, with a higher measure of personal worth; (2) attitude toward the summer institute improved; (3) teachers developed more independence in their attitudes and possessed more ego strength in resolving feelings about teaching in disadvantaged areas; and (4) at the conclusion of the institute, the concepts of the white child and the Negro child reflected the concern of Federal programs for deprived children, regardless of race. (ERIC abstract)

Ats
Dis

120. Wiles, D.K. Racial attitudes of inner-city teachers. Urban Education, 1971, 6(2/3), 273-278.

Purpose. Prior studies have indicated that inner-city school teachers exhibit least favorable attitudes toward non-white and disadvantaged students. The purpose of this study was to assess the racial attitudes of inner-city teachers.

Procedure. The 272 subjects were taken from the same urban school system used in the Coleman Report (1966) and in a study by the National Advisory Commission on Civil Disorders (1968). Each received a questionnaire (Wiles, 1969) which tapped attitudes via 30 forced-choice items.

Results. Analysis of the data indicates that these inner-city teachers exhibit contradictory attitudes about racial integration of schools. They agree on the value of integration in terms of promoting academic achievement, better self-concepts, and better relations, but disagree on the means and plans for integration.

Ats
Dis
Pyg

121. Williams, F. et al. Attitudinal Correlates of Children's Speech Characteristics. Final Report. Austin: Texas University Center for Communication Research, 1971. ED 052 213

Purposes. (1) To discover if a two-factor judgmental model of confidence-eagerness and ethnicity-nonstandardness could be replicated with the use of video tapes and other teacher and pupil populations.

(2) To determine if the judgmental process tended to reflect a social stereotype elicited quickly and by only a few cues, or whether it reflected a more detailed perception.

(3) To determine the relationship of teacher characteristics to children's speech.

(4) To determine what preliminary evidence might be obtained of the relation between judgment of speech and a teacher's expectation of academic performance.

Procedure: Study I. Six one-minute video tapes were prepared for each of six ethno-status group: Black Middle (BM) and Black Lower (BL), Mexican-American Middle (MM) and Lower (ML), and Anglo Middle (AM) and Lower (AL). The tapes were viewed by 102 undergraduate female students enrolled in a course in speech for prospective teachers--most were freshmen and sophomores and Anglo. The variations in presentation made of the tapes were: audio only (aud.), visual only (vis.) and audio-visual (AV). These were administered in a Lindquist (1953) Type IV testing design. Subjects were given standard instructions for prepared semantic differential scales and were told the task was to see how the children would differ in ratings.

Results: Study I. Children from the middle status group were consistently rated more favorably on confidence-eagerness than children from the low status group ($p < .01$). Ethnicity-nonstandardness will not result in anticipated status differentiation when the child is seen, but not heard.

Procedure: Study II. Six two-minute stimulus video tapes were prepared using the same ethno-status distinctions as in Study I. These were presented to 15 teachers and prospective teachers from upper division and graduate summer courses (14 Anglo, one Black). Ten items from the semantic differential scale in Study I were used with the inclusion of five filler items. These scales were individually printed on Hollerith data cards. Subjects were tested individually and allowed to request playbacks of the tape. For each video tape presentation, subjects were given a shuffled deck of 15 scale cards and instructed to distribute them on a table and complete them in any order desired. The subject was to stop the tape and mark the scales as soon as he was able to make a judgment. As each scale was completed it was to be deposited in a box. Time taken and order of scale completion were noted.

Results: Study II. It was anticipated that scales pertinent to ethnicity-nonstandardness ratings would be used prior to those for confidence-eagerness. There was no significant variation. There was significant difference in latency of response involving the ethnic variable. The order of latencies was: B (96.5 sec.), M (91.1 sec.) and A (84.8 sec.). There was also a significant ethnicity-by-status interaction ($p < .01$).

Procedure: Study III. Ten items from the Semantic Differential Scale (Study I) and five filler items were printed in randomized order on a sheet of paper. The subjects from Study II were requested to fill in stereotype response booklets consisting of six brief descriptions of the ethnic and status groups of children in the video tapes. All six descriptions were on one page, followed by six pages of semantic differential scales. This was done one week prior to the video tape presentation. Video tape testing was done individually (see Study II). Three to five days after video taping, subjects were once more requested to fill in the stereotype response booklets.

Results: Study III. Ratings of stereotyped descriptions of children and their video taped speech samples often corresponded in terms of the two judgmental dimensions: confidence-eagerness and ethnicity-nonstandardness ($p < .05$). There was a high correspondence between pre- and post-stereotype ratings.

Procedure: Study IV. Forty-four undergraduate education majors (42 female, 2 male), enrolled in a speech course for elementary teachers, were shown video tapes of individual 5th and 6th grade male children, representative of three ethnic groups. Each child was assembling a plastic model car while describing what he was doing and what he intended to do with his car. The audio portion of the tapes was dubbed. The Anglo child was always paired with the Anglo dub; however, two Anglo dubs were paired with the visual image of either a Mexican-American or Black child. It was possible to compare ratings of standard English speech as paired with children of three ethnic types.

Two weeks prior to the video tape presentation, subjects completed a pretest response booklet requesting imagined ratings of a Black child, Anglo child, and Mexican-American child on evaluation forms.

Each group of five or six subjects saw a dubbed standard English tape of a Black or Mexican-American, a non-dubbed tape of a Black or Mexican-American, and an Anglo non-dubbed tape. They were asked to complete the semantic differential scales (Study I).

Results: Study IV. Results of the analysis of variance of ethnicity-nonstandardness ratings revealed a significant main effect on the ethnicity dimension ($p < .001$). Thus, visual cues of ethnicity did bias teachers' judgments of the same standard English samples.

Procedure: Study V. Two hundred eighty-eight teachers in an in-service training program were shown a series of video tapes described in previous studies. Each teacher saw six video tapes involving four test sequences. Subjects were asked to fill out test booklets which contained 15 speech evaluation scales, an evaluation form containing scales for assignment of a child to a graded class of 1-5, and 3 sheets of stereotype label stimuli. When the teachers had filled out the stereotype label stimuli, the video tapes were shown and the evaluation was completed.

Results: Study V. Low status children were rated as more ethnic and nonstandard than middle. Both Anglo and Black teachers rated Anglo children as the least ethnic and nonstandard. Mexican-American teachers differentiated only the Black children as the low and middle status groups. The only significant variation in confidence-eagerness ratings was in terms of ethnicity. In terms of class assignments, ethnicity-nonstandardness was the more salient predictor of class placement in language arts, math, and social studies predictions.

EPL
Ats
Dis
Pyg

122. Woodworth, W.D., and Salzer, R.T. Black children's speech and teacher's evaluation. Urban Education, 1971, 6(2/3), 167-173.

Purpose. To determine if there is a relationship between the classroom teachers' evaluation of a child's character and worth, and the child's manner of speaking.

Procedure. The subjects were 119 elementary school teachers enrolled in graduate professional education courses in western New York. In two separate meetings each subject heard two reports--one factual, one more imaginative--supposedly prepared by male sixth grade students for a social studies assignment. The reports were randomly read by black and white students.

Results. Analysis of the data indicates teachers' preferred material presented by the white student. The authors concluded that the subjects identified the black child's voice with his racial background and the assumed negative achievement expectation.

EPL
Ats
Bei
Dis

123. Yee, A.H. Interpersonal attitudes of teachers and advantaged and disadvantaged pupils. Journal of Human Resources, 1968, 3(3), 327-345.

Purpose. To study teachers' attitudes toward children and pupils' attitudes toward their teachers as dependent variables in determining the characteristics of teachers of advantaged and teachers of disadvantaged pupils.

Procedure. The subjects in 1964-1965 were 100 intermediate-grade teachers and their pupils in 34 public elementary schools in the middle-class neighborhoods of Austin and San Antonio, Texas and San Francisco, California. The second group of subjects (1965-1966) were 112 teachers and their pupils in 16 public schools located in lower-class neighborhoods of cities in central Texas.

Teachers' attitudes were measured by the Minnesota Teacher Attitude Inventory and a semantic differential scale (Osgood, Suci and Tannenbaum, 1957). Pupils' attitudes were measured by the "About My Teacher" inventory (Beck, 1964).

Results. Statistical analysis found the following variables to have significant sources of variation: 1) pupils' social class; 2) teacher's sex; 3) grade level; 4) teacher's years of experience; 5) pupils' ethnic-social class characteristics. The last variable was found to be the most critical factor affecting the teachers' attitudes toward the student.

Analysis of teachers' affective attitudes indicates that middle-class students have teachers that are warm, trustful and sympathetic while lower-class students face cold teachers who tend to blame and fault the students.

Comment. This study indicates the need for further investigation into the effects of pupil-teacher interaction.

Ats
Beb
Bei
Ber
Dis

124. Yee, A.H. Source and direction of causal influence in teacher-pupil relationships. Journal of Educational Psychology, 1968, 59(4), 275-282.

Purpose. To investigate the relationship between teachers' attitudes, years of teaching experience, and the pupils' social class.

Procedure. The subjects were 102 teachers and their pupils in 32 schools in middle-class neighborhoods in the San Francisco bay area and central Texas, and 110 teachers and their pupils in 18 schools in lower-class neighborhoods in central Texas.

Teachers' attitudes were measured by the Minnesota Teacher Attitude Inventory and a semantic differential scale (Osgood, Suci and Tannenbaum, 1957) prepared for this study with "My Class" as the concept. Students' attitudes were measured by the "About My Teacher" inventory (Beck, 1964).

Results. Statistical analysis of the data indicates that teachers exert more influence on pupils from schools located in lower-class neighborhoods than on pupils from middle-class neighborhoods; middle-class pupils and their teachers have more mutual influence relationships; and greater differences exist between levels of pupils' social class than between levels of teacher experience.

Comment. These findings are similar to Yee's study published in Journal of Human Resources, 1968, 3(3), 327-345. The same population was used.

125. Zahorik, J. Teacher verbal feedback and content development. Journal of Educational Research, 1970, 63, 419-423.

Purpose. This research set out to investigate the relationship of teacher verbal feedback to phase and type of venture used in content development during discussion lessons. Specifically focussed on were: 1) the differences existing between types of feedback employed during the medial phase of ventures and the types employed during the terminal phase of ventures; 2) the differences existing in the types of feedback employed during the medial phase among the various kinds of ventures; 3) the differences existing in types of feedback employed during the terminal phase among the various kinds of ventures.

Procedure. Ventures are units of discourse based on content. Six are used in this study--informatory, concept, causal, reason, procedural, and evaluative. Sixteen types of feedback composed of combinations of seven feedback elements were used including: simple praise-confirmation; positive answer repetition; response development solicitation; response development statement; response improvement solicitation; several-answers solicitation; and different topic lesson progression. Medial feedback is teacher verbal feedback occurring within a venture while terminal feedback occurs at the end of a venture.

Subjects of this study were eight third-grade and seven sixth-grade teachers and the pupils in their classes. Each teacher taught one current events discussion lesson based on the same content for each grade level. These 15 lessons were recorded on tape and later transcribed and analyzed using Smith's and the investigator's criteria. Analysis was also done by comparing medial and terminal feedback generally and in relation to the various types of ventures. Significance of difference in feedback usage was determined by chi-square.

Results. The results indicate that there is a clear relationship between teacher verbal feedback and phase and type of venture. Significant differences were found between the types of feedback employed during the medial phase and the types employed during the terminal phase. Important differences were also uncovered in relation to medial feedback and in relation to terminal feedback among the various types of ventures.

While some of these results are not unexpected, others are. The finding that response development solicitation and several-answers solicitation are medial feedback behavior is not surprising since these feedback behaviors invite further content development from pupils. The finding that praising and repeating are used at both positions is surprising since previous findings state that these behaviors indicate closure. This dissonance is explained in noting that mild encouragement, praise, and repetition signal content development, but when they are both used in the same feedback statement, they signal closure.

The nature and use of response development statement was also unexpected. Calling for response development is a medial feedback behavior while giving response development is a terminal behavior at the end of a venture.

JHL
Bei
Bev

126. Zimmerman, B. The relationship between teacher classroom behavior and student school anxiety levels. Psychology in the Schools, 1970, 7, 89-93.

Purpose. This study attempts to describe, empirically, the nature of teacher and pupil individual differences and similarities in formal classroom communication.

Procedure. Nine English classes, three at each of the seventh, eighth, and ninth grade levels, were audio taped for 50 minutes on five usually consecutive days. Observers noted the names of each pupil and whether a pupil would enter discussions voluntarily or at the teacher's request. Teacher and pupil speech was timed.

Teacher differences in encouraging pupil participation were measured by computing, separately for each teacher, the product of the mean length of each student communication and the mean number of communications per student. The class products ranged from a low of 45.50 to a high of 156.11. These values differ significantly for grade level: the value for grade seven is 141.96, for grade eight it is 69.33, and for grade nine it is 46.95.

Results. These classes were described as clearly "verbal kingdoms." Slightly more than half (52%) of all class time was classified as formal communication. Teachers were dominant contributors in all cases accounting for 83.4% of class speaking.

Principal characteristics of pupil formal communication are brevity and inequality of distribution, with the typical student making an average of two statements per class session of eight-and-a-half words in length. One of the statements would be at the student's own behest, the other at the teacher's request. Statements are usually directed to the subject matter. Very rarely might a student speak out about prohibitory or disciplinary matters.

The seventh grade teachers allow more pupil participation than either the eighth or ninth grade teachers. Teacher differences were also noted as to the extent of distribution of pupil interactions between voluntary and nonvoluntary involvement. Two teachers heavily controlled access to communication, while in two other classes the majority (two thirds to three-quarters) of pupil communication was done on the pupils' initiative. It was also found that a pupil in any seventh grade class or in one of the ninth grade classes expected the teacher to call for his participation more often if he was voluntarily a high rate interactor; this further increases such a pupil's voluntary statements. Relationships found here are thus suggestive and heuristic rather than definitive.

Comment. One methodological point of contention in this study seems to be the focus on student verbalizations as indicators of teacher behavior.

EPL
Bes
Dis
Spe

127. Zimmerman, B., and Bergan, J.R. Intellectual Operations in Teacher-Child Interaction. Tucson: Arizona University, 1968. ED 039 011

Purpose. In light of the heavy emphasis on content mastery in our classrooms, it was hypothesized that teachers will tend to ask more questions in the cognition category of Guilford's Structure of Intellectual Operations (IO) than in other intellectual operations categories (such as problem solving and creativity). It was secondly hypothesized that training in a process curriculum--the Tucson Early Education Model (TEEM)--would modify teacher question-asking behavior so that the cognition category was less emphasized. Specifically, it was said that experimental program (EP) teachers, when compared to non-program (NP) teachers, would ask more perceptual questions, more divergent production questions, more convergent production questions, and more evaluation questions.

Procedure. Four school districts employing the TEEM Follow Through Program, located in Iowa, Texas, Louisiana, and Georgia, were selected to participate in the study. From these districts 42 EP and 75 NP first grade teachers were selected for observation. Pupils reflected a variety of socio-cultural groups.

The TEEM Program emphasizes the development of intellectual process in early elementary school children. Implementation of TEEM involves: 1) classroom instructional staff (teacher aides, teachers, teacher trainees); 2) parent coordinators (who work to organize and develop significant parent involvement); and 3) school psychologists (serving as consultants to instructional personnel and parents concerning learning and adjustment in children).

Selected teachers were audio taped for 40 minutes during normal classroom interaction. Coders trained in the IO model worked in teams of two, categorizing teacher questions. The seven IO categories include perceptual questions, cognition questions, memory questions, divergent production questions, and convergent production questions.

Data were analyzed using a repeated measures analysis of variance design. A highly significant interaction indicated that EP teachers differed from NP teachers in several IO categories. EP teachers exhibited a significantly greater percentage of perceptual questions and "other" questions and a significantly smaller percentage of cognition and memory questions.

In obtaining a representative profile of patterns of teacher questioning of disadvantaged children (based on sample schools in areas with a mean income of less than $5,000), EP teachers were excluded since they were recipients of special training. It was found from this analysis that cognition questions comprised 37.2 percent, "other" questions 29.1 percent, divergent production questions 14.2 percent, memory questions 10.4 percent, perceptual questions 4.3 percent, and evaluation questions only 3 percent of total teacher questions.

Results. The most striking finding, say the authors, was that an inordinate emphasis is placed on factual knowledge in early education while other intellectual operations vital to productivity in our changing society are not stressed in teacher question-asking behavior. Since the disadvantaged child lacks verbal skills, he has much difficulty producing or retrieving verbally presented factual knowledge. In another study based on the current sample, the authors found that EP teachers elicited significantly more child talk than NP teachers. This prevents the teacher's imposition of intellectual demands not present in the child's repertoire and capitalizes on the motivation inherent in success. Thus the experimental finding based on TEEM training, indicating significant change in teacher question asking-behavior from a content mastery approach to an intellectual process approach, is especially promising with regard to the motivation of disadvantaged children.

LIST OF ANNOTATIONS BY DESCRIPTOR CATEGORY

References are to entry numbers. Code letters pertaining to topic areas are indicated in parentheses following the descriptor listed. Code letters pertaining to grade levels (PSL - pre-school, EPL - primary or elementary, JHL - junior high or high, CUL - college or university) are subheadings within each descriptor. In the body of the text, code letters appear in the upper right hand corner on the first page of each entry.

Attitudes toward students, influences upon (Ats), 10, 21, 34, 35, 42, 55, 60, 82, 93, 98, 100, 111, 118, 119, 120, 121, 124; PSL, 26, 45, 54, 63, 78; EPL, 1, 2, 9, 17, 18, 47, 58, 61, 63, 64, 66, 92, 104, 109, 122, 123; JHL, 2, 28, 31, 81, 88; CUL, 73, 85

Behavioral aspects, relationship of teacher behavior to
--background, qualifications, experience (Beb), 19, 124; PSL, 54, 63; EPL, 1, 61, 63, 72, 109; JHL, 12, 87; CUL, 74
--classroom climate (Bec): PSL, 51, 102; EPL, 2, 20, 56, 80; JHL, 2, 52, 96, 115
--discipline (Bed), 27; PSL, 50; EPL, 70, 72, 83, 84; JHL, 81
--interaction between student and teacher (Bei), 42, 46, 55, 86, 90, 97, 99, 100, 101, 118, 124; PSL, 25, 45, 59, 78; EPL, 11, 17, 18, 29, 36, 39, 44, 47, 48, 56, 59, 66, 71, 80, 92, 104, 107, 113, 123; JHL, 15, 22, 28, 76, 77, 89, 96, 126; CUL, 23, 49, 65, 67, 73
--personality characteristics of teacher (Bep), 21, 34, 46, 57, 86, 95; PSL, 51; EPL, 5, 24, 41, 69, 113, 116; JHL, 33, 77, 112, 115; CUL, 74, 91
--rating of teacher behavior by students (Ber), 86, 95, 124; EPL, 104; JHL, 12, 22, 112; CUL, 4, 13, 49, 67, 68
--strategy, style, method or technique of instruction (Bes), 14, 30, 60, 101; PSL, 16, 26, 32, 43, 59; EPL, 8, 29, 37, 56, 59, 71, 80, 84, 103, 105, 110, 116, 117, 127; JHL, 37, 40, 52, 103, 105, 114; CUL, 13, 49, 74
--verbal and non-verbal communication (Bev), 38, 53, 57, 90; EPL, 20, 39, 79, 83, 106, 125; JHL, 6, 7, 33, 75, 114, 126; CUL, 13, 91

Comparing student and teacher attitudes (Com): EPL, 3, 64; JHL, 15, 81, 94

Culturally disadvantaged children, minority groups, racial issues (Dis), 10, 21, 34, 35, 82, 93, 98, 119, 120, 121, 124; PSL, 25, 32, 43, 54, 78, 102; EPL, 1, 2, 9, 18, 47, 103, 108, 122, 123, 127; JHL, 2, 28, 31, 89, 103, 108

Exceptional children, disturbed children (Exc), 19, 118; PSL, 16, 63; EPL, 61, 63, 106

Gifted children (Gif): EPL, 69; JHL, 12

Pygmalion or expectancy effect, self-fulfilling prophecy (Pyg), 35, 99, 121; EPL, 17, 36, 44, 48, 62, 122; JHL, 31, 76

Special programs, study institutes, in-service training (Spe), 10, 21, 46, 93, 98, 111, 119; PSL, 25, 32, 43, 51, 54, 78, 102; EPL, 9, 20, 29, 37, 41, 71, 79, 84, 103, 105, 107, 116, 127; JHL, 6, 7, 37, 96, 103, 105

Student achievement (Stu), 14, 93, 97; PSL, 26, 32, 59, 78; EPL, 5, 11, 20, 24, 48, 59, 62, 64, 69, 107, 113, 116, 117; JHL, 40, 76, 87, 89, 96; CUL, 67, 68, 73

Tests and measurement, methods of behavior analysis (Tem), 19, 30, 38, 46, 53, 90, 97, 101; PSL, 16, 43; EPL, 29, 37; JHL, 6, 15, 22, 33, 37, 40, 52, 75; CUL, 4, 68, 74